Hints on Grape Culture.—IV.

THE ground being now prepared for the reception of the vines, it becomes necessary to consider the best mode of planting them. The act of planting is one of the most interesting and important operations in the whole management of the vine; it constitutes, with thorough preparation, the foundation upon which the superstructure is to be reared; and the superstructure will prove durable and fulfil its purpose, just in proportion as the foundation is well laid. The functions of the root will occupy us at another time; at present, our object will be to get the vine properly in its place.

It is usually the case that a few general directions are given for all kinds of planting alike; but in our own practice we always make a distinction, which we shall here explain. Though the object is the same in all, the manipulation is somewhat different in each. We shall divide the subject into, 1. *Cuttings;* 2. *Layers;* 3. *Eyes;* 4. *Thomery.* If the ground has been prepared as directed, it will only be necessary to dig holes sufficiently large to receive the roots; if it has not been so prepared, it will be necessary to dig holes at least four feet square and two or three feet deep; or, better, a trench four feet wide. The ground between the rows can be trenched after the vines are planted; but it is always best to prepare the soil before planting. We shall suppose the ground has been prepared according to our directions, and proceed accordingly.

It is important that a bed of fine soil be prepared for the immediate reception of the roots; no raw or acrid manure should be allowed to come in contact with them. For this purpose we always prepare a compost. It may be composed of "rotted sods," old "headlands," or good garden soil, mixed with charcoal dust, vegetable mold, and a little fine manure, not less than two years old. This must be worked up fine, or passed through a coarse sieve. A peck or more of this compost should be deposited at each hole, or at intervals along the trench.

Being thus prepared, let us ascertain how *deep* the vines are to be planted. We have already entered an emphatic protest against deep planting; and we take occasion to repeat it. Except for the Thomery, the roots should be placed about *four* inches beneath the surface; in sandy, gravelly soils, they may be placed even six inches deep; but our general rule is, plant four inches deep. There is more danger of getting them too deep than too shallow. The reason for placing the roots at this depth will be given hereafter.

Now let us proceed to the act of planting, first, the *cutting.* Cuttings usually have two layers of roots; sometimes there are three, the third or bottom one being feeble, and often decayed. In all cases, cut clean up under the second layer of roots, shorten in all long, straggling, non-fibrous roots, and remove all that are decayed. The vine is now ready for planting. In the case of cuttings, the roots composing the *upper layer* are to be placed within four inches of the surface, and the hole must be dug deep enough to accommodate the lower layer. Spread an inch or so of compost in the bottom of the hole; with the left hand collect the upper layer of roots, and hold them up and around the stock of the vine; spread out the lower layer of roots, and with the hand, as the compost is added, work it in and around the roots, so that all interstices are filled in; next fill in with soil till the upper layer of roots is reached; then put in some compost, on which spread out the roots, and fill in as before. All this is really not so troublesome as it

seems; it is, however, all things considered, much the cheapest mode of planting a cutting that we have any knowledge of, as it is by far the best. The usual practice is, to dig a small hole, crowd in the vine, and fill up so as to force the roots in a mass against the stock. The results in after years correspond with the planting.

Let us next take a *layer*. In this case the roots are disposed along a foot or more of the stock, and are inclined to be long and non-fibrous, as layers are usually made. They should all be cut in, and decayed portions entirely removed. Let the hole be sufficiently large to receive the roots when spread out, which, as before, are to be about four inches deep. Put in a layer of compost, and spread out the roots right and left, giving them, as you approach the collar of the vine, a fan shape, so that they spread at that point in all directions; cover the roots with compost, working it in by hand as before, and then fill up with soil. The layer is thus planted.

The *eye* will next claim our attention. The operation is substantially as before; the manipulation, however, is more simple, and the planting sooner performed. Prepare a hole sufficiently large to receive the roots. Shorten in and cut out decayed roots, as before directed; in this case, however, there will be less root-pruning necessary, because a really well-grown eye is nothing but a mass of the most beautiful fibrous roots; but all eyes are not well grown, and must be root-pruned accordingly. Put in a layer of compost; spread out the roots in all directions; cover with compost, and work in as before; then fill up with soil, and the eye is planted. An eye can be planted in less than half the time of a layer or cutting.

We now come to the *Thomery*. This mode of planting embraces some peculiarities. We may remark here, that it is neither intended for nor adapted to the vineyard. Its proper place is the garden, or the wall, or the side of a house, barn, or similar position. At present we have only to do with the planting of the vines according to this system. We will suppose the border to have been trenched and prepared as heretofore directed. As the vines in this system are to be planted two feet apart, it will be necessary to dig a trench the length of the trellis or row, the trench to run east and west. This trench should be two feet wide and six inches deep, the earth to be thrown up in a ridge on the south side of the trench, there to remain during the season. We have now a trench of the required length, six inches deep, which is to remain open for the year, and in this trench the vines are to be planted precisely as directed above; that is to say, they are to be planted four inches deep in the open trench. The most direct mode of proceeding is to throw out *ten* inches of soil, and then plant the vines, covering them *four* inches, which will leave the trench open a depth of *six* inches, the surplus soil to be ridged up on the south side of the trench. If the sides of the trench are made a little sloping, the wash, even during heavy rains, will be trifling, and do no harm. The reason of this open trench will become apparent in the subsequent treatment of the vines. Stakes should always be put in at the time of planting, when we can see where to put them; if put in afterwards, the roots are disturbed, and often very much injured. In Bright's system, in the Thomery, and, indeed, in all systems where close planting is the rule, it is better to open a trench than to dig holes.

It will be seen, that though the manipulation differs somewhat in each case, the general object is the same in all. We aim to prepare a suitable bed for the reception of the roots, to spread them out naturally, to fill up all interstices, and to have the roots at a suitable depth. In filling up the holes, the soil, as it is put in, should be lightly "firmed," compacted, or pressed gently with the foot, so as to prevent

too much sinking; but care must be taken not to pack it hard. We do not design at present to do any thing more than describe the simple operation of planting the vine. It will be necessary, however, at the time of planting, to cut all the vines down to two or three eyes; this is indispensable, no matter what system of training may be adopted. Planting should not be done when the ground is wet; when it will crumble freely in the hand it is in good condition. As a general thing, no watering is necessary at the time of planting; if the ground is very dry, and water is needed, let it be given before the last two inches of soil are put in. All unnecessary exposure of the roots must be avoided. A good plan is to have a couple of wet cloths at hand; place the vines on one, and cover them with the other; they can thus be carried along, a dozen or so at a time, without exposure. They can also be put in a box and covered with damp moss, or any other convenient plan can be adopted.

There are many systems of training the vine, some of which require the vines to be planted at certain distances apart. This part of the subject, as well as the best time to plant, will be treated in our next article.

LANDSCAPE ADORNMENT, NO. 12.—ROADS.

BY GEO. E. WOODWARD, LANDSCAPE ENGINEER, 29 BROADWAY, N. Y.

"Prim gravel walks, through which we winding go,
In endless serpentines, that nothing show,
Till tired, I ask, 'Why this eternal round?'
And the pert gard'ner says, 'Tis pleasure-ground.'"

Much has been written to show the folly of adopting the curve line in the drives and walks of a country estate; but, in spite of all the arguments utilitarians have brought against it, popular taste still advocates its continued use. As a line of grace and beauty, the curved line has no equal; as a line of direction, properly managed, it is scarcely of less importance than the straight line; and in point of taste, management, and economy, it stands confessedly its superior. The average of experiments can draw no practical distinction, in distance, between the undulating grades of the straight avenue, and the winding direction of the curved line, when applied to grounds in the natural form; and the theory that introduces distance into the argument against the curved road, has a basis of the most trivial and unimportant character. We take the position, that *economy* is one of the most important elements to be considered in adorning a country home, and that, when applied to the location of a drive or walk, it is productive of the most beauty. The competition of trade or travel does not constitute a single purpose of its construction; but ease, utility, and ornament, are among its chief characteristics. The conditions that govern the location of a public highway, or systems of internal communication, do not apply in the same manner; although both require a knowledge of the same rules, and the application of the same principles.

In selecting the ground for an approach road, it is desirable to avoid a succession of different grades; and a location should be so made, as to keep the grade as nearly uniform as possible; this is by no means practicable in all cases, yet it should be one of the leading points to be observed. In doing this, good

taste would dictate the selection of such ground as would be fully up to the grade line, instead of making embankments across hollows or depressions; and to wind around, or rise over, instead of cutting through elevations. No general rule, however, will apply to a particular case. It is sometimes far better, tastefully considered, to embank a low hollow, than to sag into it, with a steep grade; also to make a short cut, than to go over an abrupt elevation. Where the particular circumstances of the case are best treated by a judicious balancing of excavation and embankment, they should be so managed, that no violence to natural surfaces should be apparent; thus, an embankment should gradually blend with the original ground, and the sides of an excavation be sloped off and planted in such a manner as will conceal all appearance of force. A certain degree of earth-work, in road-making, is always necessary; but as it seldom happens that a grade line coincides exactly with the original surface of the ground, it can generally be found, if a location be properly made, within the minimum amount of excavation or embankment, and in such case, the adjoining lawn should either be taken down or raised up, so that it correspond with the grade of the road.

A remarkable feature, in a first-class ornamental road, is a well-adjusted gradient, and marks one of the strongest differences between it and the common public road; the use of it not only expresses a high form of utility, but necessarily a high form of beauty, and it is quite as essential as the graceful plan of alignment, or a finished manner of execution.

A road that winds around a hill side, will have more than the usual amount of earth-work; in this case, it is laid over, that is, the excavation on the upper side makes the embankment on the lower, and the surface lines are easily carried over the face of the cutting, and down the slope of the embankment. Mr. Loudon says, "one of the finest descriptions of approach road that we can imagine is, where a road of several miles in extent is made to wind its way through hilly or mountainous scenery at *one uniform rate of ascent*, till at last it arrives at an open level area, containing the mansion."

If we compare the differences in distance between a straight road and a curved one, supposing both to be located on a plane surface, we shall find that the average increase of distance is about five per cent., very often not exceeding three per cent., and on very long approaches, as low as, or even less than one per cent. On an approach road four hundred feet long, the extra distance would be twenty feet, or the length of carriage and horses; an approach one mile long, would lose about two hundred feet, and,* "If a road between two places, ten miles apart, were made to curve, so that the eye could nowhere see farther than a quarter of a mile of it at once, its length would exceed that of a perfectly straight road between the same points, by only about four hundred and fifty feet." As a man will walk three hundred and fifty feet in a minute, and an ordinary horse will trot a thousand feet in the same space of time, one can easily estimate to what extent it will pay to sacrifice beauty and taste to utility.

We have, in some cases, lost at least thirty per cent. of distance, in carrying a road on to a high elevation; this was for the purpose of getting length to reduce the rate of ascent, a straight line being utterly impracticable.

That time should enter closely into the calculations of business men, is to be expected; that it should be an element to be considered, in the plan of embellishing a country estate, and to it should be sacrificed taste, pleasure, or safety, is not in accordance with any of the principles of the art. When time is of such

* Sganzin, p. 89.

importance, we should prefer to live nearer town, or the dépôt, and not yield a single expression of beauty to the inexorable demands of business.

It would seem hardly necessary to advance further arguments in favor of the use of the curved line, though they might be multiplied almost indefinitely. Over natural grounds, or those embellished in the natural style, it is the only harmonious line, and expresses delicacy, ease, and polish; while the straight avenue breaks harshly over undulating swells, and has an abrupt and forcible expression. With level or inclined planes, the straight line is in keeping, but with rolling or undulating grounds, the curved line only will harmonize.

The location and construction of ornamental roads is a subject of much importance in landscape embellishment. Understandingly managed, they will elevate the character of a very poor place, or, by a contrary course, will effectually ruin a fine one. More than one-half of the expression of the design lies in the proper location of the approaches and drives; by them, and from them, the impression is received. They are the most frequented portions of the premises, constitute one of its principal charms, and if of a high order of excellence and finish, are one of its pleasurable associations. Next to a fine lawn and skilfully managed plantations, the hard, smooth, well-kept drives, command their share of praise. But this is a subject we can not dispose of in one essay.

[Mr. Woodward has reached a portion of his subject which has been fruitful of argument: it is still debatable ground. It is easy to see which side of the question he takes. Both the curve and the straight line have their proper places: it is the part of good judgment and taste to locate them properly. Mr. Woodward proposes in subsequent articles, to illustrate the construction and form of some of the best kinds of roads.—Ed.]

ENGLISH VIEWS ON PEAR CULTURE.

BY WM. BRIGHT, PHILADELPHIA.

Last year, when I was about to visit England, an amateur friend, who makes Pear-culture a specialty, handed me a list of questions, which he wished me to present to some experienced cultivator of this fruit in Great Britain, and, if possible, to obtain some brief answers to the inquiries. On my arrival in England, I gave the paper to Mr. John Powell, head gardener in the Royal Gardens at Frogmore, who has perhaps no superior in the art of managing the Pear in that country—at least, in respect to *practical* skill. Mr. Powell very kindly consented to answer the questions. No words passed between us in relation to the inquiries, nor was any discussion held by us upon the general subject of Pear-culture. I give the questions and answers just as they were written by my amateur friend and Mr. Powell.

What is the best standard market Pear in England?

Answer. Bishop's Thumb is the most profitable. Summer Bon Chretin, Beurré de Capiaumont, and Hassel are good.

What is the best market Pear on Quince root?

Ans. Louise Bonne de Jersey. The Ananas also grows and bears freely on the Quince.

What is the best age for transplanting Pear-trees, all things considered, for a commercial Pear-orchard?

Ans. Pear-trees may be transplanted with success at any age from one year to ten; but the best age, all things considered, is three years from the graft or bud.

Do you place any manure or compost under or around or among the roots of Pear-trees when setting them in the orchard, and if so, what kind?

Ans. If the soil is poor, such as red sand or shingle, and also shallow, rotten horse or cow dung is sometimes used with good results; but it is better to top-dress the roots with the same kind of manure after planting; also, in after years, to top-dress in the same way when the trees show any signs of feebleness.

Do you apply any mineral manures, as lime, ashes, bone-dust, to the soil before planting?

Ans. In heavy clay or wet soils it is an excellent plan to use bone-dust, lime, pulverized brick, and ashes. Perhaps the best material of all is burnt (or charred) earth; in fine, any material which will render the soil open and porous. Calcareous or carbonaceous substances are always useful in such soils.

How *small* may be the distance between Pear trees, in garden culture; and what is the best distance for a dwarf and standard orchard mixed?

Ans. Dwarf and pyramid may be grown at eight feet apart, without root pruning. Mr. Rivers cultivates them a yard apart, by continuous root pruning, or by lifting them every two years, and pinching the leading shoots during the summer growth. It is not advisable to plant dwarfs and standards together. Eighteen to twenty feet apart is the usual distance for standards.

What is the best method of pruning to induce early fruiting, and continued healthfulness and profit?

Ans. Root pruning, and stopping all the strongest shoots during their growth, is the best treatment for dwarf trees. To induce early fruiting in standards, the shoots must not be shortened.

Does the Borer ever, or often, enter standard Pear wood?

Ans. This grub and beetle are not found in England.

Is there any earth-grub (not the true Borer, *Saperda bivittata*) which attacks the quince roots?

Ans. None that I am aware of.

Do you advise the application of much stable-manure to fruit-bearing Pear trees?

Ans. As stated elsewhere, all depends on the nature of the soil, and the condition of the trees. Stable-manure is good, used us surface dressing, and the skilful cultivator will always know, by the condition of his trees, when to use any stimulants.

Do you advise the application of lime, ashes, dissolved bone-dust, iron filings, or any other special manures to Pear trees? If so, what?

Ans. In clay, bog, or peat soils, the application of lime, ashes, or bone-dust, I strongly advise. In calcareous soils, stable-manure, or any other kind similar in chemical properties, should be used.

Do you mulch Pear trees? If so, with what substances?

Ans. We always mulch after planting, and at all times when the trees show any signs of weakness. Cow-dung is the best for this purpose.

Do you practice root pruning of standard Pear trees? If so, how soon do you commence after transplanting to the orchard, and in what way? Do you, at the same time, cut back the tops freely?

Ans. We never root prune large standard Pear trees in orchards, where they grow at will. Pear trees, allowed to assume their natural size and habit, always form abundance of fruit buds. The only pruning required is thinning the

branches, and occasionally shortening a branch to balance the tree; but, as a general rule, the tops ought not to be cut back, for there the finest fruit is produced. Garden standards are often root pruned, that is, when pruning is annually done to keep the trees within bounds. Root pruning is then of great service to check their growth and to cause them to be fruitful. It is not necessary to shorten the branches at the time of root pruning.

Would it answer to cut off all the roots of Pear trees four feet from the stem on two sides of the trees, and keep them constantly cut in that direction, if allowed to extend on the two other sides? (That is, to grow them in rows ten feet apart, and keep open a sub-soil cut in the centre of the ten-foot space, to drain and admit air into the soil.)

Ans. Yes, especially in wet or heavy land; doubtless the trees would be improved by this treatment.

How do you keep and ripen pears generally?

Ans. In the first place, the proper time for gathering each variety must be considered, and this varies in different places. Therefore no special rule can be given which will be a guide to all cultivators. The peculiarities of each variety and each locality must be studied. As a general rule, however, all kinds that have a tendency to *mealiness* should be gathered early, and the reverse with those varieties which have a juicy and gritty texture. Early varieties are of course best kept in a cool place; after the late varieties are gathered, admit air and light to the store till the fruit has ceased to throw off moisture, and the cells are sealed by the oily matter furnished by the fruit for that purpose. When this process is complete, if the store be dry no more air is requisite. Be careful not to allow any decayed fruit to remain in the store, or any fungi to accumulate. If any fruit do not soften at the proper time, introduce them into a warmer temperature, which will improve both color and flavor. It is a very good plan to place a few of the long-keeping kinds in *dried sand*, in boxes or jars. Do not put them in till the sweating process is past. A few lumps of unslacked lime placed in the store-room occasionally, is of great service to absorb moisture and destroy fungus.

How do you keep, ripen, and color the Vicar of Winkfield and other winter pears?

Ans. Allow all late pears to hang on the trees till the latest period of gathering. Give light and air to the fruit store for the first six week; after this close the house, and keep the temperature at 45° to 50°. If not colored or ripe at the proper season, put them into a close box, in a warm room or vinery, where the temperature is from 60° to 70°.

What, in your opinion, are the causes of the Blight which often seizes and destroys large and apparently healthy fruiting Pear trees?

Ans. The Blight which seizes Pear trees in the summer time in America, is unknown here. Large and apparently healthy trees often fail here, but in no solitary instance have I traced the cause at the root, but to frozen sap in the branches. The injury is not done during severe frost in the winter months, but in spring when the sap is rising, and then I believe no injury arises from *dry frost*, but when the branches are wet, and the shoots become coated with ice, which happens when rain and frost occur nearly at the same time, or frost immediately succeeds rain.

Is trenching three feet deep absolutely necessary, on a *good soil*, after sub soil plowing eighteen inches deep, to obtain the best success in pear culture? Is it even desirable?

Ans. Trenching soil three feet deep is not at all necessary, especially if the soil is good. Eighteen inches are sufficiently deep. If deeper, it would only encourage over-luxuriance of growth in the trees, a thing which ought always to be avoided, if possible, in pear culture. If the surface is clay, over a calcareous sub-soil, then deep trenching may be done with advantage, and these two kinds of soil incorporated together make a soil suitable for the growth of the pear.

Is under-draining necessary in a friable soil, with a porous sub-soil, for success with quince-rooted trees, or standard pears?

Ans. No, only in very wet, swampy ground, and then it is good practice to grow them on ridges.

Do you advise deep or shallow planting of Pear trees?

Ans. Shallow, by all means. Young trees should not have more than four inches of soil over their roots, and in planting divide the roots equally around the tree, and place them in a horizontal position.

How deep, if at all, would you cover the quince roots on dwarf trees?

Ans. About four inches, and that, if possible, raised a little above the surface.

Would you permit grass to grow in a Pear orchard? If not, how would you work the open ground to save labor and not injure the trees or exhaust the soil?

Ans. I would not advise grass for a Pear orchard. It is far preferable for the health and productiveness of the trees to work the soil and grow light crops, say early potatoes in the spring, and turnips in the autumn, always using a dressing of manure for the spring crop, so that the soil may not be exhausted. It also appears certain that late spring frosts do not injure the blossoms of fruit trees so readily when growing in arable land, as in grass-covered soil, owing probably to a dryer atmosphere in the case of cultivated ground.

[An article of much interest, especially as presenting the views of a skilful English cultivator. The questions are clearly put, and, in the main, clearly answered. With the exception of Louise Bonne de Jersey, none of our popular pears are found in Mr. Powell's list; from which might be drawn some interesting inferences. The difference in climate, however, is so great, that we should naturally look for widely different results.—Ed.]

ON THE SYSTEM OF POT-CULTURE IN ORCHARD HOUSES.

BY AN OLD-COUNTRY MAN.

(Continued from p. 216.)

Although the cultivation of fruits in pots under glass has been to a limited extent practiced for very many years in the forcing houses of large establishments, (and for which the mode of potting that has been above described is applicable,) the system of growth now usually referred to, under the designation of "Orchard Houses," is comparatively of recent date; it having been brought before the horticultural world in England about a dozen years ago by Mr. Thos. Rivers, a well-known nurseryman at Sawbridgeworth. The principal feature of the excellent system advocated by him consists in the growth of trees through

the year by the joint agency of the earth in the pots containing the trees, and that of a border of rich earth upon which the pots are placed, and into which their roots penetrate through holes left for the purpose in the bottom of the pot. And as these roots (in the border) are periodically cut off in the course of the annual culture, it will be apparent that the condition of the plant is not so dependent upon the earth in the pot: because, in addition to the nourishment supplied by that, a great degree of stimulus can be given to the plant by increasing the richness of the border; and the excitement to growth, if too active, can again be checked by severing the roots below the pot, wholly or in part, as may be required.

The way to pot the young tree for this mode of growth is, first to enlarge the hole at the bottom of the pot to the size of three or four inches. Place three or four large pieces of broken pot over this hole, so that there is room for the roots to protrude through in several places. Now place a few pieces of fibrous loam or turf on these broken crocks, and the tree upon that. Then proceed to fill up the pot, compressing the compost with care, but firmly and evenly, as before directed. On account of the rooting into the border, and the increased support there to be derived, smaller pots may be used; but it is not expedient to use a less size than eleven inches in diameter, in which size, if desirable, some kinds of fruit may be grown for three or four years, or even longer.

The border within the house upon which the pots stand should be composed of rich material, such as rough turfy loam mixed with manure from an old hot-bed, forked up and left in a loose, open state, so that air may circulate freely through; and the pots when placed on it will press the surface under them sufficiently to enable the roots to obtain a firm hold beneath.

The best time to pot the plants is in October or November, but it may be done in February. In the fall, the sooner it is done after the leaves turn yellow the better; and they should be immediately pruned. If young trees a year old, cut them down about the sixth bud from the surface of the pot; if a year older, cut each branch (of which there should be left three or five, according to the strength of the plant) to about seven or eight inches in length. Give a good watering, to wet completely *through* the ball of earth as soon as potted; and water occasionally *if necessary*, but not otherwise, just to prevent the earth becoming dust dry, until frost sets in. From that time no more water will be required until February. The pots may all be put close together in the house, having a good covering of hay or straw over the whole to keep severe frost from them. Take care mice do not get at the bark.

In February, towards the end of the month, examine the plants, and place them in the border, (if there be one) at least three feet apart, and so that their foliage will not shade one the other. Give each a small quantity of water; and in a week's time give more, so as to bring the earth into a moist state gradually; as to which, the temperature, whether warm or otherwise, must be the guide.

Ventilation, both at front and back or top of the house, will now be necessary all day, and at night also, whenever sharp frost or a cold frosty wind does not prevail, in which case guard against it.

As soon as the buds on the trees commence to break into leaf, give them (annually) a good top-dressing of very old stable manure; and also a thorough watering with manure water once in every six or eight days; and except on dull cloudy days, or when frost is severe out of doors, they will require daily a good soaking with soft water, which must never be given of a lower temperature than the atmosphere of the house. The afternoon is the best time to water in hot weather, and the morning in cooler weather.

As soon as fruit has set and is commencing to swell, but not before, syringe the house freely morning and evening, and this should be continued until the period arrives for the fruit to arrive near to maturity. As soon as it begins to change color leave off syringing; but the daily supply of water must be continued until the fruit is gathered, and until the leaves commence to turn yellow. From that time withhold water gradually, and let the plants go to rest.

When the leaves begin to change, such of the pots as are rooted into the border should have a knife passed under them, and the roots cut off close to the bottom of the pot.

During the growing season the supply of water must be regulated by the state of the weather. It must be borne in mind that where the roots are allowed to ramble in the border, the plants are not so liable to suffer from neglect of watering as are those confined entirely to the pots. And although it is not, on the whole, advisable to plunge the pots, yet it is a good plan to rest a piece of board or something against the side of the pots, standing next the front of the house, to prevent the sun's rays from striking directly against them.

The great thing to be attended to is to give plenty of air. Without ample ventilation it is quite useless to attempt this mode of cultivating fruits. From the time that growth commences in the spring until the fruit is ripe, there should be constant circulation of air through the house; in fact, all that can be given consistently with keeping out frosty or very cold winds; which latter, although not frosty, are injurious.

As regards pruning, the leading shoot of each main branch should be cut back in October, according to its strength: probably from one-half to two-thirds the growth of the year. Besides this, at the end of May or in June, the side shoots that grow upon the main branches must be pinched off, reducing them to an inch in length; two leaves left on each are sufficient. These so left will become future fruit spurs. Where the plants have rooted into the border, their branches should receive their fall pruning at the turn of their leaves, at the same time that their roots are severed, as above directed.

After three or four years' growth in pots, the main branches will diminish considerably in length; and then they require but little shortening in the fall; but the summer pinching of all lateral shoots will be annually required. And when that is done it is also best to pinch the extreme points off the main branches also; but on no account to shorten those until the fall.

When about the size of marbles, the fruit must be thinned, taking care never to overcrop the plants, or their future bearing will be injured. The number left must be regulated by the size of the tree; from one dozen to three or four.

If, when in vigorous growth, any plant that has thrown down roots into the border is found to be growing too luxuriantly, and making elongated, watery wood, it may easily be checked by cutting the roots below the pot *partly* through, by passing a knife between the bottom of the pot and the surface of the soil on one side only. Where the roots are altogether within the pot, overgrowth is not likely to occur; on the contrary, after growing in the same pot for two years, such plants should be shifted into larger pots or wooden tubs, which latter are the best, because they protect the roots better than earthen pots from changes of temperature. When shifted, the surface soil may be taken away with a pointed stick for an inch or two, and the sides slightly pricked with the stick to loose some of the roots; and dead roots, if any at the bottom, should be cut away. In placing in the larger pot, secure good drainage, as in the first instance, and take care to press the compost *very* firmly between the old ball and the sides of the new

pot. Unless this is well done, the water afterwards given will pass off through the new compost, and the old ball of roots will gradually die and cause the death of the tree.

Those plants which are allowed to root into the borders will not require repotting so often as others. No grape vine or other foliage must be trained over the roof of the house. If a vine is required, it must be confined to an end of the house. No fruit trees would do any good beneath its shade.

[This last caution is a very necessary one. We have seen several attempts to grow fruit trees under vines, but they were signal failures, the fruit, when it ripened at all, being quite insipid and worthless. The best that can be done under such circumstances is to start the trees in a *cold* vinery, and move them out of doors as soon as the vines begin to make the least shade. The only way in which both can be cultivated in the same house is to grow the trees and vines in pots, and this can be done in a satisfactory manner.—Ed.]

CHARCOAL A DEODORIZER OF ANIMAL MATTER, AND NOT A PRESERVATIVE OR ANTISEPTIC.

BY WILLIAM LAWTON, OF NEW ROCHELLE, N. Y.

I am induced to make some remarks upon this subject, in consequence of a discussion which took place at a meeting of the Polytechnic Club of the American Institute, in reference to a quality attributed to this material, and until lately generally admitted, as a *preservative* of animal matter from putrefaction and decay, To fall into this error was very natural, when a piece of decaying or tainted beef. covered for a few hours with pulverized charcoal, could be taken out and found to be inodorous, and free from impure ingredients, as far as taste and smell were concerned. The inference seemed almost conclusive that charcoal would not only arrest putrefaction, but restore the animal fiber to all its peculiar and healthful properties as food. Here it can be seen how readily the plain, practical man of business, as well as eminently scientific men, can honestly endorse and sustain opinions which are plausibly upheld by appearances and ingenious experiments, which, on more thorough investigation, may be found to be erroneous.

In a communication of Professor Way, before the Royal Agricultural Society of England, he sets forth that the noxious gases resulting from the putrefaction of animal matter generally, (consisting principally of sulphureted hydrogen and sulphuret of ammonia,) each particular animal substance, excretion, or otherwise, had its peculiar odor. Although abundantly perceptible by the senses, and in many cases, as in musk, almost inexhaustible, yet it was inappreciable in weight.

The causes of the action of charcoal, and the difference in the effect of wood or animal charcoal, need not be considered now in explanation of the single question, Is charcoal a preservative of animal substances against decay and putrefaction? Bearing directly upon this question, we have a paper from Dr. J. Stenhouse, of England, furnished to the Journal of the Society of Arts, with an interesting account of experiments made with a view of testing this peculiar property attributed to charcoal. The bodies of two dogs were placed in a wooden box, on a layer of charcoal powder a few inches in depth, and covered with the same material, and

the box left open in the laboratory of an eminent chemical manufacturer. No effluvia was ever perceptible; and on examination, at the end of six months, scarcely any thing remained except the bones. Experiments were subsequently made with a full-grown cat, and with two rats; the bodies soon became in a highly putrid state, without the slightest perceptible odor in the room.

These experiments can be readily made, and seem to establish the fact that, so far from arresting animal decomposition, it promotes putrefaction, by rapidly absorbing the gases which arise from it. Pulverized charcoal, then, favors putrefaction and decay, and stores away in its cells the pestilential gases which may destroy the living, when returning to earth that which, according to the laws of nature, belongs there.

Let us hereafter ascertain more fully the uses to which this cheap and perfect deodorizer can be applied. During the unhealthy seasons, can we bring down and store away for manure poisonous miasma, and purify the air? By the proper use of this material may we not seize upon that pestilence which "walketh in darkness," and, under the providence of God, strip it of half its terrors, and save many from death?

Let us experiment with this cheap material. Let us see that our stables and pens are well supplied, and all decompositions in the vicinity of our dwellings rendered inodorous; and then let us inquire if the manure we have gathered from our barn yards, and hog pens, and poultry houses, is not intrinsically worth as much as all the cost of the material, together with the labor of applying it. Indeed, that we may thus deodorize and store away in the most convenient manner, all animal and vegetable putrescences that we can collect upon our farms, to be conveniently and cheaply distributed upon our gardens and farms.

Powdered charcoal can be purchased at a very low rate; and as it possesses, more than any other substance, the power of attracting, condensing, and retaining ammonia within its cells, would it not be well to experiment upon the economy of a more general use of this material, and its more extensive use in the compost heap?

The season is approaching when a consideration of this subject may elicit facts of value to farmers and gardeners, to whom it is often as important to call attention to established facts, as new theories, and ingenious and costly experiments.

[This subject is interesting and important enough to be thoroughly discussed. The valuable properties of charcoal as a deodorizer have long been known and used, and are not brought in question by Mr. Lawton and the Polytechnic Club. It seems to us, however, that they have assumed the whole question. There is nothing to be gained in discussing a question unless it is based upon some known basis, clearly stated. After reading Mr. Lawton's article, we can not perceive wherein the opinions of "plain, practical men of business," or "eminently scientific men," are proved to be erroneous. These men have made no such claims as are here ascribed to them. What scientific man has ever claimed that a covering of charcoal dust would preserve from decay the body of a dead dog? Let the claims of scientific and practical men be fairly stated before we proceed with an argument. They have made certain claims in behalf of charcoal dust, but we must deny that they are of the nature here ascribed to them. Let us get our premises fairly established, Mr. Lawton, and then the argument will follow with some hope of beneficial results. What you say of charcoal as a deodorizer is good and valuable.—Ed.]

APPLES—ARE THEY RUNNING OUT?

BY J. J. LYON, PLYMOUTH, MICH.

DEAR SIR,—Observing, in your February number, an article by C. W. G., on the above subject, I wish to bespeak your indulgence while I notice a few particulars in which he apparently misapprehends the real nature of the difficulties of which he treats.

Speaking of the Kentucky fruit known as Rawle's Jannet, he draws the conclusion that its habit of late starting in the spring occasions, also, a lateness of maturity which unfits it for more northern latitudes. There is doubtless much apparent reason for this conclusion in the fact of its unpopularity north of the Ohio valley; but, with a knowledge that it has been grown for many years, in this state, as far north as latitude as 42° 30′, with no complaints of its failure to mature, the writer is inclined to attribute its lack of popularity at the north, rather to the fact that it does not compare, in quality or appearance, with other varieties that succeed there, while *they* are unsuccessful in regions farther south.

The main fact, however, to which this correspondent alludes is, that, in nearly all the northern States, the varieties that usually take the premiums, as the best fall and winter sorts, are the same, notwithstanding the fact that these same varieties are pronounced unsuccessful in many of these states. From these facts, he argues that their apparent failure must be *only* apparent; and that, with proper treatment, they would be found universally successful. This we can not but consider a hasty conclusion. The varieties to which this writer doubtless alludes, such as Rhode Island Greening, Fall Pippin, Esopus Spitzenburg, Roxburg Russet, and Baldwin, do occasionally produce fruit in these regions, and that of the finest quality. Their failure in portions of the west, therefore, is not in *quality*, but in *quantity;* and in this respect, the deficiency is often so decided, and withal so constant, as to render them mere cumberers of the ground.

In many localities, however, and with some of these varieties, this is by no means the only cause of failure. Whole orchards are sometimes swept off by the changeableness and severity of the winter, rendered more fatal, doubtless, by the unripened wood resulting from over-rich soils, lacking the suitable preparation to which he so properly alludes.

While, therefore, we heartily concur with your correspondent, and also with yourself, in the belief that these varieties are not to be considered as "running out," the conclusion seems difficult to avoid, that they lack adaptation to the climate or soil, or both; and that other, and perhaps less valuable varieties, must be substituted for them, till the progress of pomology shall develop newer and more valuable sorts, adapted to meet the exigency.

[The above, dated February 25th, would seem to prove that "Uncle Sam" sometimes drives a very slow coach. We are very glad to get it, however, and ought not, perhaps, to complain of the mail in these times. While we are not willing to admit that apples are "running out," we can agree with you, Mr. Lyon, that some kinds are better adapted to certain localities than others. We must accept the fact for the present, however we may account for it. Leaving C. W. G. to speak for himself, we would remark, that articles conceived in the spirit of the above, going a little more into detail in regard to kinds, locality, etc., would be of much service to the Committee now revising the fruit list of the American Pomological Society.

IS ASPARAGUS A MARINE PLANT?

BY HORTICOLA.

This question was, several years ago, discussed in the *New England Farmer*, a paper which does equal credit to its accomplished editor as to those who support it by their subscriptions. A writer stated there that he had extensively travelled on the sea-shore from Holland to Denmark in order to collect the marine plants for a friend of his, then engaged in the preparation of a botanical work; but he had not met with a single specimen of asparagus. He had, however, seen asparagus growing in great abundance in a certain locality of the *Hainleite*, a calcareous ridge in Thuringia, stretching parallel with the *Harz* and *Thüringerwald*, from west to east. It grew there in the woods, not far from the city of *Frankenhausen*, in such profusion that children and poor people used to cut it for the market. The asparagus was thin, it was true, not thicker than the stem of a white clay pipe, yet of a flavor surpassing that of the cultivated kinds.

As the writer of the artlcle had never received a satisfactory answer when he asked, whether it was true that asparagus is a marine plant, being generally referred to the books which said so, he wished to see the question discussed.

I saw then a number of articles not only in the *New England Farmer*, but also in other agricultural papers, to show by authority that asparagus was a marine plant. Some of them were based on rather surprising grounds. That the *Encyclopedia Americana* was adduced to corroborate the fact may be overlooked, although its distinguished editor, Dr. Francis Lieber, my highly esteemed friend, would never have dreamed of seeing his work used to decide a botanical question like that. The *Encyclopedia Americana* was never intended for such a purpose. Its statement that asparagus is found growing on the English coast and on some of the British islands, is undoubtedly correct, but it would never claim those localities exclusively as the native birth-places of a plant so widely disseminated all the world over. This will become apparent from the following.

A gentleman of Connecticut invited the writer to pay him a visit; he would show him asparagus at the mouth of the Connecticut River, and on the shore of *Long Island*. This is singular; for the gentleman seemed to think that asparagus is *an American plant*, an assertion so bold and ludicrous that one is prompted to say with Horace of old,

"Risum teneatis, amici!"

A boy conversant with the alphabet of botany will not believe a place where a plant accidentally grows wild, its native birth-place. In walking through the fields near New York, a tolerably careful observer will hardly see any other weed than of European origin. Would he without hesitation pronounce them American because found to grow without cultivation on American soil?

The discussion interested me much, and would have done the more so, had it been conducted at least with common sense. I could not follow it then further than to the Connecticut and Long Island stage, as I, by accident, moved to a distant place, where my attention was directed from agricultural pursuits. Yet in recently perusing some numbers of the *New England Farmer*, I fell in with several of the articles alluded to, and propose to contribute a little to the settlement of the question still open for doubt.

It is, however, necessary to premise a few remarks having immediate bearing on the subject.

It does not follow that a place where a certain plant grows wild, is just the only place where it can be found. Do not our trees grow in a variety of places and soils? Are not a number of our wild plants found nearly every where, on the mountains, in valleys, in barren sand, in peat bogs, in the deepest shade as well as in the full sun? Botanists designate such plants by saying that they grow *in all places* (*omnibus locis*). I have found asparagus growing wild in a peat-bog very near *New Durham, N. J.;* I have found it on the *Catskill Mountains;* I have found it in the *Highlands* of New York, remote from all habitations of man, back of *Fishkill;* I have found it on the trap-rock near *West Hoboken;* I have found it in graywacke soil by the roadside; I have found it on the beach in *New Rochelle*, West Chester Co., N. Y. There I found it towards the close of October in *full bloom.* I have the plant still carefully pressed and preserved, together with a beautiful blossom of the red Azalea, (Azalea nudiflora,) which I had picked a few days before in the Catskills.

I ask, would any one venture to ascribe asparagus to peat-bogs, or to the Catskills, or the Highlands, or to Graywacke, or to Trap-rock? Would any one be willing to assert that asparagus blossoms in October along with the Azalea nudiflora?

It is true enough that asparagus is benefited, at least *not injured*, by the application of salt, although I have been in countries where they raise asparagus in the greatest perfection without a particle of salt. Does it follow that asparagus must be a marine plant, because of its bearing salt as an addition to its soil? I should not wish to show that I think so little of the judgment of any of the readers of the HORTICULTURIST, if I attempted to point out the large number of trees, shrubs, and herbaceous plants that are benefited by salting without being *marine plants.* In salting can certainly not be found a reason that asparagus belongs to the marine plants.

To the authority of the *Encyclopedia Americana* that of works on Natural History could easily be opposed. Without searching, *Lenz*, for example, occurs to me, who asserts, in the fourth volume of his justly celebrated book, (p. 247,) that asparagus grows wild in *Germany*, in sandy places. Still, this would be of no avail, as the correctness of such an assertion might be questioned by pointing out other localities with different soils, and yet producing wild asparagus in profusion.

The task of going back from age to age, from book to book, to find the first notice of asparagus, would be too tedious to be likely accomplished by any one, however great an interest he might take in investigating thoroughly matters in themselves so trifling.

That asparagus grows in Thuringea, on the calcareous ridge mentioned above, there can be no doubt; that it grows there originally, not accidentally, may be more than probable, on account of the extensive area it there occupies.

Not long ago I happened to open *Juvenal*, an old friend of mine. In his eleventh Satire he has, in v. 68 and 69, the following words:

* * * et *montani*
Asparagi, posito quos legis villica fuso.

This means, literally translated, "and *mountain asparagus*, which the wife of the farmer collects, after the spinning is over." Juvenal speaks there of a meal, on

which shall appear *a kid*, with more milk in it than blood, and which never touched the coarse food, of which the goats are fond, and *mountain asparagus*. In Italy, therefore, in the times of *Juvenal*, (at the close of the first and beginning of the second century after Christ,) *asparagus was a mountain, not a marine plant.*

Perhaps it had been transplanted from Britannia into Italy. Should it seem probable to any body that such was the case, it might not be difficult to prove that the grape vine had originally come from Massachusetts and Rhode Island, called *vine-land* by the Northmen, and had been disseminated in France. This, however, must, in regard to asparagus, have taken place in times out of mind, *before the Romans knew any thing of Britannia;* for, according to *Martial*, the great Roman epigrammatist, a contemporary of *Juvenal*, asparagus was, in his times, *already artificially cultivated, as well as growing wild.* He says, in Book xiii., Epigr. 21:

Mollis in æquorea quæ crevit spina Ravenna
Non erit incultis gratior asparagis.

This means that the asparagus *cultivated* in Ravenna was not more tender and agreeable than that growing wild.

[Horticola, in his learned dissertation, has certainly produced some strong arguments against the popular belief that asparagus is a marine plant. We have seen it growing wild under the most diverse circumstances. It seems to us quite certain that asparagus is not alone indigenous to the seashore of Great Britain, as is commonly supposed. It is distributed over all portions of the world, being most usually, however, found growing in light and sandy soils. In the sandy steppes of Russia it is said to grow so abundantly that cattle are pastured on it. We confess to archæological proclivities, even in Horticulture, and should be glad to have this subject further discussed.—Ed.]

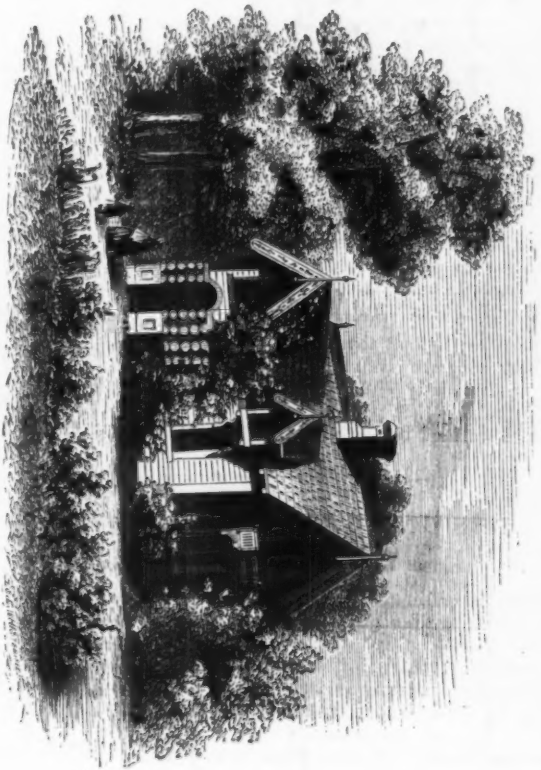
DESIGN FOR A SMALL COTTAGE.

BY MYRON B. BENTON, AMENIA, N. Y.

This design is calculated to give convenient accommodations for a small family, without great expense. Two of the most costly features, usually, of a house, are avoided—the bay-window and veranda. The place of the latter is supplied by a grape trellis, of which the first cost would be but trifling, and instead of requiring constant expense to keep it in repair, would prove rather a source of profit. The walk beneath it should be either paved or thoroughly gravelled.

The principal entrance is through an open porch, which is supported by half-length turned posts, the lower part being ceiled. A small circular window lights the stairway in the front hall, *H*, and occupies the narrow panel at one side of the porch; and there is a lighted closet under the stairs.

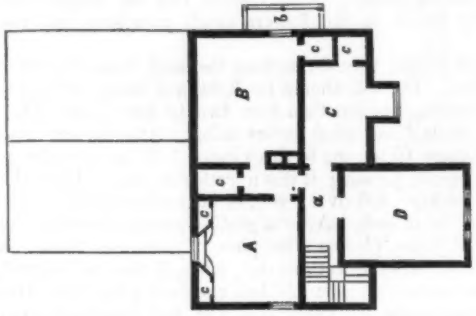
Contrary to the almost universal custom, the largest and pleasantest room in this design is not set apart to be kept darkened most of the time, and only used a few times in the course of the year. In how many houses which we see, the principal and most costly part of the structure seems only erected for a barricade between the street and the little back wing, the only part commonly used.



COTTAGE DESIGNED BY MYRON B. BENTON.

The parlor, *P*, is, however, a pleasant room, 12×15 feet, with two windows, (one of which opens under the trellis,) and communicates with both halls. The living-room is a larger room, 15×20 feet, and is designed, also, for the dining-room, and connects with the kitchen, *K*, by the back hall; the pantry, *p*, opening

from both. The back hall, *h*, furnishes a side entrance, without an outside door, opening directly into the living-room, or the necessity of traversing the kitchen for that purpose; a fault too common in small houses. Though no chambers over the back wing are given in the plan, yet a stairway is placed in this passage, as being conveniently situated, in case subsequent enlargements should be required, by raising that part another story. The bed-room, *B*, is 11×11 feet, and might be warmed by the pipe from the kitchen stove, passing through the partition.



The chamber plan gives four bed-rooms, without any in the back wing, which would furnish two or three more, if made of equal height with the front part: *A*, 9×11 feet, with two closets and a recessed window-seat; *B*, 12×15 feet, opening on the balcony, *b*; *C*, 8×12 feet, lighted by the projecting dormer; and *D*, 10×13 feet.

The cost of construction would, perhaps, be about $1200.

THE POLYANTHUS.

BY DANIEL BARKER, HARTFORD, CONN.

It must be admitted that the Polyanthus, if not one of the most popular at present, is at least one of the most beautiful of our Spring flowering plants. There are but few that can boast of a greater share of floral beauty than is displayed by a well-grown specimen of any of the improved and cultivated varieties which are cultivated with so much success throughout Europe, (and, we are pleased to add, in many places in this country;) and as new and good varieties are imported or raised, and brought into notice, they can not fail of gaining many admirers, and ere long will become quite as popular as they are in Europe.

To cultivate it successfully throughout the northern and eastern states, it should be treated as a half-hardy plant. They are not difficult to manage, if kept through the winter in a cold frame, protecting them from severe frosts, keeping them dry when in a dormant state, and watering freely when in a growing state, and keeping them at all seasons quite free from decaying leaves, weeds, &c.

Raising from Seed.—For raising common kinds, to withstand the winter in the flower garden, it is easy enough to procure seed; but to raise a first-class flower, such as should be considered sufficiently choice to repay by its extra beauty the extra care usually bestowed upon the improved varieties, is quite another thing. During our thirty years' experience, we have never seen *one first-rate variety raised from ordinary seed.* We would not be understood to say that seed purchased at seed stores is not worth all that is paid for it; in many cases, when the seed is fresh, it is; but if any one purchase with an idea of procuring such seed as will produce first-class varieties, he will most assuredly be doomed to disappointment. What, then, is to be done? The only way is to procure a few good standard kinds, and keep them apart from all the Primula family, as far as circumstances will admit. If others are growing near by, place the best kinds under a muslin shade during the blooming season, being careful that no winged insects find their way through the frame to the flowers, or all your care may end in disappointment.

As to the most proper time for sowing the seed, I would advise September as the most suitable. The soil should be light and sandy, with a small portion of very rotten cow-dung, not less than from two to four years old. The seed pans should be well washed and dried before using. After having placed a sufficient quantity of drainage, (from one to three inches,) fill in to within one inch of the top with the compost, pressing it down rather closely. Upon this sow the seed evenly, but not thickly. Sift over it soil, through a fine sieve, to the depth of about the sixteenth part of an inch. After a gentle watering through a fine rose, remove the pans to a cool frame, placing a flat piece of glass over them. Keep the soil in that happy medium between wet and dry, when, if the soil be good, it will germinate in about six weeks. It is an old but excellent plan of the Dutch and French florists, in watering seeds and young plants of their favorite flowers, to use a hard clothes brush, dipping it into milk-warm water, and drawing the hand briskly up and down; by this means there is a beautiful vapor, which waters without washing up the seed or young plants.

As soon as the plants make their appearance, be careful to admit air by degrees, in order to render them hardy. When they have made about four leaves, remove them into seed pans or boxes, planting them about one inch apart, in the same kind of soil as recommended for the seed. Place them in a cool, dry place in a frame,

where they may remain until the leaves touch each other, when they must be repotted singly into pots about three inches in diameter, in a soil composed of about equal parts of loam, peat, and very rotten leaf mold, with about one eighth of rotten cow-dung, (from three to four years old,) and sharp river sand. Place them again in the cold frame, where they may remain, well protected from severe frosts, until the following March, when they will require repotting into pots five inches in diameter, using one inch of drainage in the bottom of the pots, with the same compost as recommended for the first potting. As soon as they flower, which, under ordinary circumstances, will be about April, let all of them possessing good properties be selected, and named or numbered, and afterwards receive the same attention as directed for full-grown plants. Be careful not to turn out any of the plants which have not flowered, as it not unfrequently happens that the weaker plants prove to be the most beautiful varieties.

Offsets.—The proper season for removing the offsets is from August to the end of September. They should be taken from the plant either by being broken by the hand or by a piece of wood; never use a knife in dividing them, as it is very prejudicial to both parent and offset. Plant them singly, in small pots, in a compost the same as is directed for seedlings. Water carefully and with caution until the plants are well established, shading during the warmest part of the day. When well established, they should be treated as directed for general stock.

Soil for established Stock.—To insure good healthy plants, never use any of the nauseous ingredients recommended by many of the European florists. A mixture which will not fail to make good healthy plants and fine bloom, may be made as follows: four parts of good fresh loam, such as the sod, with about six inches of the soil, from an old cow pasture—if of a sandy nature, so much the better; two parts of good rotten cow and horse manure, not less than three years old; and two of decayed leaf mold; well incorporated before using.

Culture.—The most proper season for repotting is from the last of August to the end of September; not later. In dividing the plants, one good strong crown will be quite sufficient. Always pull them asunder; never use a knife. For the larger and well-rooted plants, prepare pots about four inches in diameter, by washing them, unless new ones are to be used; place one inch of broken oyster or clam shells at the bottom, over which place half an inch of moss, to make it more permeable. During the summer months, place the plants upon a bed of coal ashes, plunging them to the rims of the pots, under a wall or fence having a northern aspect, the better to shade them from the mid-day sun. About the middle of October, they should be placed in a good tight frame with a boarded bottom, which will keep them dry, and prevent the ingress of worms to the pots. Elevate the plants to within eight or ten inches of the glass. Let air be given at all favorable opportunities, particularly during damp weather. In watering, always use a spouted pot, to prevent the water settling in the heart of the plants, which would damage if not destroy them. Be careful to keep them well aired whenever the external atmosphere will admit of it; and protect them from severe frosts by a mat or shutter. About the first week in March, the plants should be top-dressed to the roots with the same kind of compost as used for potting, and well pressed down. Water must now be given, in proportion as the plants advance in growth. At this time, be careful to guard against frost, and to remove all decayed leaves, weeds, &c. As soon as the flowers begin to open, they may be removed into the greenhouse, conservatory, or any other place where they can receive light and air, and be sheltered from the direct rays of the sun. Never use manure water for this class of plants, as it only tends to produce a luxuriance of foliage injurious to the

development of the flowers, and causing, in many instances, the premature decay of the plant.

The following is a list which, in my experience, are among the best in cultivation, and which will not fail to give entire satisfaction to the cultivator of this useful and elegant tribe of plants.

Alexander, (Pearson;) Beauty of England, (Maude;) Cheshire Beauty, (Sanders;) Duke of Northumberland, (Thompson;) Exile, (Cronshaw;) George IV., (Buck;) Highland Mary, (Craigge;) King, (Nicholson;) Kingfisher, (Addis;) Princess Royal, (Collier;) Royal Sovereign, (Gibbons;) Royal George, (Blake.)

[The Polyanthus, in its improved forms, is yearly becoming better known in this country, and in time will become as popular as it deserves to be. In some sections they are quite hardy, but the bloom is always better for a little protection. With the above article, Mr. Baker sent us a box of flowers, all of them beautiful; one of them, named the Golden Circle, was especially so. We heartily commend the Polyanthus to all our readers.—Ed.]

CULTURE OF THE DAHLIA.

BY ANDREW RICHARDSON, FORDHAM, N. Y.

(*Continued from page* 116.)

Before proceeding further I may as well dispose of all the duplicate plants, or those not required for planting out. As they root I repot them into two sizes larger, giving them good rich stuff; placing them in any spare bit of ground, or place them in any airy corner out of the way, supplying them well with water, and allowing them to grow and bloom as they please till cut down by frost, when they are removed, *in their pots*, perfectly dried, and then stored away for the winter in the cellar, or any dry place, where neither frost nor heat can reach them. These "*pot-roots*," as they are called, are an excellent security against the loss of "*ground-roots*," which, with the best of care, will sometimes damp off, more especially those that have been highly fed. Now for the beds.

Let the Dahlias as they are planted out be well watered, *and never throughout their entire growth be allowed to wilt or flag from want of it.* To prevent accidents by wind, tie them rather loosely to the stakes with bast matting. Cultivate a deadly enmity to all weeds, never allowing them to progress farther than their seed-leaf. The Dutch hoe is the best tool for their destruction, merely skimming the surface of the ground without endangering the roots of the plants.

Air being equally necessary as water to the roots, never allow the ground to remain in a compact, baked state, which is certain to occur after waterings or heavy rains. As soon as it is sufficiently dry, break or open the surface, *without turning the soil*, with a pronged tool. I use a three-pronged fork—the prongs about 4 inches long, with a handle 5½ feet, somewhat like a small trident. It is exceedingly useful for all such purposes, and particularly for working among closely-planted flowers, where a larger tool could not be introduced with safety. It is my almost constant companion in the garden, *using it always before watering, and when there is a prospect of rain.* In the latter case I even open up the pathways in order to catch all I can: one good shower being worth a dozen waterings, and every stirring of the surface of the soil equal to a dose of manure.

Whenever it is necessary to water, *do it effectually—beware of sprinklings;*

and as the plants increase in size, extend the circumference of the waterings. By the time they have reached maturity, the feeders are searching in all directions for their pabulum from one to three feet from their respective bulbs; *so it is not immediately upon the bulb water must be expended, but, say* 12 *or* 18 *inches from it, over every other portion of the bed.*

When the flower-buds begin to appear, then is the time to commence *feeding*, for which purpose I procure a few barrow-loads of *fresh cow-dung*, of which I put two or three spadefuls into a large tub, filled with water, stirring it well, till it acquires the color of good "*brown stout.*" Having allowed it to settle, I give each plant a couple of gallons twice a week to begin with, increasing it to three times a week as they advance, and as the time for competition approaches I apply it daily; on the intervening days giving them pure water only. As this may be an unpleasant operation for some noses, I would recommend instead to those who dislike it, the application of guano water, *very weak—better often and weak than too strong.* Should the weather be wet, and no occasion *to water*, yet advantageous *to feed*, pass some dry guano through a fine sieve, and sprinkle it thinly on the beds to be washed in by the rain. *Salt* is also good for them at this stage, applied in the same manner as the dry guano, but be careful of the foliage that it does not touch it. This, I think, is all that need be said on watering and keeping the ground in *open order.* Let us now turn our attention to other important branches of the subject, viz.: training, thinning, or pruning and disbudding.

If the Dahlia, generally speaking, were in no way restricted, but allowed the full bent of its inclination, it would, when at maturity, present a confused, intricate mass of main stems, laterals, and foliage; and, if it flowered at all, instead of giving blooms of four to six inches in diameter, they would be no larger than small pompon chrysanthemums. It is to avoid a result so undesirable and disappointing that pruning and training are begun at the earliest possible period.

When the laterals or side-shoots have grown a couple of inches, or even less, select four of the strongest nearest the ground, one on each side of the stem, which with the centre will give five main leaders, thus ·⁝· enough for strong growing varieties; for weaker sorts *three* are sufficient; *all the rest pinch off*, carefully preserving the leaves, from whose axil the shoot starts. In cases where the laterals don't break, cut off the top of the plant, when they will soon appear, supplying the now vacant centre with a fifth shoot from the bottom. Were it not for the appearance of the thing, I would grow them all without centre leaders, for the *free, airy opening* it gives them, keeping them dwarf and short-jointed, tending much to improve the blooms; but being a *stickler* for *form* in *plants* as well as in flowers, they strike me, without the centre, as being like so many tubs; therefore I advocate centres, using the means within my power to give them the most perfect circulation of air, *pruning* and keeping the *side stems well apart.*

When the laterals have grown a few inches, place the side sticks in their positions, one opposite each shoot, and distant from the plant six or eight inches, driving them firmly into the ground, at least a foot and a half, giving them an *outward* inclination, thus \|/. As the shoots advance tie them out to their respective sticks, and as *their laterals* appear pinch them all off, reserving the axil leaves. We have now five main leaders without a single lateral, and all we have to do for some time is *so* to carry them forward, *pinching out* and *tying up*, as the plants progress, making a point, at every fresh tie, of looking back at the former ones, and *slackening* them, if need be, to prevent any check to the flow of sap. With favorable weather they ought now to be growing rapidly, and will require frequent looking over.

Let me here drop a caution or two. In pruning, as much as possible *banish the knife;* never allow superfluous shoots to get beyond the power of the *finger* and *thumb*, it being better management to stop them while young and tender, when their removal can produce no mischief, than to delay till they become older and firmer, when the necessary use of the knife must cause a large loss of sap, to the positive injury of the plant, causing needless exhaustion by allowing a superabundant growth that has ultimately to be removed.

Accidents, it is said, will happen in the best regulated families. It would be a remarkable season that passed without the destruction of one or more main stems, generally caused by high winds and careless tying, when the *knife must come into play.*

In such cases cut the stem cleanly off near the bottom, if the portion left be solid; nothing more need be done; but if hollow, examine if it contains water, and if so, take it out with a small bit of sponge tied to a piece of stick; then cover the orifice with any thing that will exclude water. I use a piece of *India rubber cloth*, or a *wooden pill-box*, for as sure as water finds a lodgment there, just so sure will the remaining stems rot off, rendering all previous labor vain; shoots will by and by start from the bulb, but too late to be of any service.

Keep a sharp look-out now for premature flower-buds, and pick them off. As a general thing, I never let a bud get larger than a pea until the first week in September; *all are taken off.* Were I to allow them to bloom when they pleased, they would be utterly exhausted before their blooming season proper, September and October, arrived, leaving me, when I wanted them, without a bloom worth looking at; therefore my object is to carry them, in all their undiminished vigor, through burning July and August, *without a bloom upon them*, into the more congenial temperature of September and October, when I encourage them to put their best buds foremost.

Let us return to the thinning process, which, if carried out as directed, the plants, about the beginning of August, each with its five leading stems without a lateral, ought to present a fine healthy appearance. The pruning, up to this period, may by some be considered *severe*, but I find it absolutely necessary to secure for the future of the plant the most perfect circulation of air.

Having, then, gained this *all-important* point, *I cease pinching out for the present*, and allow the next four laterals on the centre stem to grow, one on each side, *vis-a-vis*, as at the beginning, pinching out the succeeding ones as before. On the side stems I allow three to grow, the *outward* and the *two side ones*, taking away the *one pointing inward*, always keeping an eye on free ventilation; and as the laterals of these 16 additional shoots appear, take them off *until their flower-buds show themselves.* In a short time these young shoots will fill the spaces between the main stems, affording abundance of material to work upon, and forming a dome which, when covered with blooms, as it soon will be, is a sight never to be forgotten.

Hitherto our operations have been general, that is, all have had the like treatment; in future it must be varied to suit the nature or habit, and the manner of blooming of the individual plant, for they not only vary in these respects, but, like other *beauties* in the world, some are positively capricious, being all that one can desire in one locality or soil, and good for nothing in another. They certainly open a large field for observation, and here the subject becomes very suggestive, but it is not necessary that I enlarge further than to give the *leading* characteristics, in order to guide us in our future management.

Varieties, having a crowded mass of foliage, are those that require *severe*

pruning; if their flowers are numerous and small, a liberal disbudding must take place; if constant and true to character, disbud as soon as you can get your fingers about them. Duchess of Wellington and Conqueror are types of this class, requiring the severest treatment in both respects.

There are many varieties, exquisite in every point, but so uncertain, such as Beauty of Bath, Duke of Wellington, Agincourt, Beauty of Slough, Yellow Beauty, and others, that may, perhaps, give a single good bloom or two at most during the whole season. With such sorts we must be very cautious in disbudding, having patience until we ascertain by the formation of the bud whether or not it is worth retaining; but I need not waste space on these, which I merely notice to show the treatment, and which I invariably discard, however beautiful, when, after various modes of treatment, I find that they *will have their own way*—ground-room and labor being with amateurs too valuable to bestow on any of them that don't yield a fair proportion of good blooms during a large part, if not the whole of the season. Another class presents buds with hard, scaly eyes, of which Lady Paxton, Mrs. Eliza Burgess, (new,) and Tyrian Prince, are types, whose centres in the early part of the season are slow in perfecting themselves; so much so, that often before being fully developed the back petals drop, rendering such blooms valueless for exhibition or competition purposes; the only remedy in such cases is more moderate pruning, and rapid growth, with high feeding. As the season advances, and these varieties somewhat exhaust themselves, they will be found to open freely without losing their back petals; they are a valuable class where late blooms are desired.

The next and last class is of a character diametrically opposite, having centres soft and loose. I call them the *deceptive class*, for to all appearance there is nothing wrong with the bud selected; and it is after daily watching its development with delight, and inwardly rejoicing in the hope of to-morrow completing a marvel of perfection, that all our high anticipations are often dashed to the ground by the unlooked-for fatal spot—the *yellow disk*. Types of this class are found in Empress, Amazon, Miss Caroline, and others. They have often deceived me, but I continue to grow them because of their always yielding a fair quota of perfect blooms under proper treatment. If there is one portion of the Dahlia ground *poorer* than another, I plant them *there*, growing them *very slowly*, and *less vigorously*, or, in other words, *half starving them*.

Keeping these few remarks in view, the blooming season will have advanced but a short way before the young amateur will have observed the various characters described, and with a few additional hints on buds and disbudding, he will be enabled to manage the balance of the process to his satisfaction.

We will now suppose it the beginning of September, when our attention must be given to the buds. As they progress, look over them very often, and every one in the least degree imperfect in form and centre, remove. Buds, to be depended upon, may be known by their perfectly circular form, and in their centre a perfectly circular hole about the size of an ordinary pin-head; this, in general, is their character before showing color, and any departure from it, however slight, will warrant instant decapitation; any neglect in this particular must be avoided to prevent the least unnecessary waste of strength.

Others again present the hard, scaly centre, which for the most part are constant and to be depended on.

Additional pruning, more or less, now depends on the views of the cultivator, whether a rich garden display only is desired, when *less* pruning is required; or, if his object be exhibition or competition, then the severe system must be con-

tinued according to the necessity of the case as already described. Apply the same to disbudding. In the latter case, when the object is to exhibit or compete, a little calculation becomes necessary in order to have them in perfection on the day they are wanted. From the time the bud begins to show color, until fully developed, is about eight or ten days, more or less, according to the weather, which, seeing we can not control, it is well to guard against disappointment by selecting three buds in different stages, which gives us three strings to our bow; should the first be too advanced, we have others to fall back upon. Buds are generally in clusters of three, the centre one being the earliest and largest, and when perfect always to be preferred. I now apply my invariable rule, which is, *first to be sure of my bud, then to take off every thing near it*, giving a liberal supply of water—*brown stout* and *pure*—alternately, morning and evening.

While growing for exhibition, it is also requisite to amputate every bloom that may have been allowed to develop, *so soon as it has passed its best*, and *before it begins to perfect its seed*, otherwise failure will certainly ensue; for as seed is allowed to mature, blooms deteriorate in a corresponding degree.

Expositions in this country are carried so far into autumn as to preclude the possibility of properly maturing seed, and at the same time compete successfully. It would be well, therefore, where seed is desired, to grow two plants of a kind, allowing those for seed to bloom a month earlier—from the first of August—giving them the same treatment as the others, until the beginning of September, *when* CUT *off every thing but the few blooms already developed, and the few buds bursting into bloom;* never mind how much the plant may be disfigured; away with every thing else—abundance of seed may then be relied on. Take it for granted that where this *slashing* mode is not adopted, seed-pods may be numerous, but rather empty. As the petals decay, remove them, to secure the seed from injury in case of much rain. Gather the pods as they ripen, with a few inches of stem to each by which to hang them in bunches of *a few only* together, that they may dry the more thoroughly, in a warm, airy room, when the seed may be rubbed out. Much of it may be thin and apparently worth nothing, but look upon it as more valuable on that account, *as it really is;* more good sorts coming from such than from seed of a plumper character.

All that remains now to be done is to get them safely out of the ground and disposed of for the winter. After the foliage has been blackened by frost, choose the *first* sunny day to lift them; cut off the side-stems close to the centre one, of which leave about four or five inches, tying the name to it with a bit of copper wire; remove all the *side sticks only*, leaving the centre one to come out along with the root, because so closely are the tubers laying around it, that the action necessary to force it out would disrupt or otherwise seriously injure the root. The lifting is better performed by two men, opposite each other, and acting simultaneously. The broad-pronged tool is preferable to the spade for use, inasmuch as the tubers run less risk of being cut. Allow whatever of soil may adhere to the root to remain, there being *no better preservative*. When lifted, turn upside down, to run off any water that may be in the stem. They may now be placed in an outhouse where they can have abundance of light and air, and allowed to dry sufficiently before being placed in their winter quarters along with the pot-roots. During winter, let them have change of air as often as weather will permit, looking them over occasionally and removing any portion of decayed bulb.

[The reader has now the views and practice of the most successful Dahlia grower within the circle of our acquaintance. If the directions are followed faithfully, the most gratifying success will be certain.—ED.]

THE CURCULIO.

BY A CINCINNATIAN.

Editor of Horticulturist,—I am surprised to discover in yours, and other Horticultural papers, that they can not prevent the destruction of their plums by the Curculio. I should not be surprised, if I knew no better remedy than those they state. Some shake the trees. I believe this would be a safe remedy, if they would begin at daylight, and shake the trees till night, not even leaving the trees to eat their meals. The "various washes and fumigations of horrible odors," would be a certain preventive, if continued till the fruit is ripe. But I should not wish to live in the house, or make the family a minute's visit, who owned the place. Their "offensive manures under the trees," that do not meet the approval of the Curculio, would not meet mine, much as I admire the fruit. To my surprise, nothing is said of surrounding the trees with a brick pavement. My garden contains near six acres. In it, in different places, I had, twenty-five years since, many plum trees; five years in six, all destroyed by the Curculio. All attempts to destroy the Curculio failing, I moved sixteen trees, and planted them round the house, surrounded by a brick pavement. A small circular space round each tree, to let rain in, and occasionally throw some water in; over this, I threw some article to notify the Curculio that if their children fell there, they would not be permitted to make an entrance. In twenty-five years I have not had a plum stung. A full crop yearly. When I began this remedy, I covered a small cluster of plums in the garden, with a fine, compact gauze: all the others were stung. When the plums began to ripen, I removed the gauze to discover if the Curculio was still about. On examining them about a week after I found every one stung.

After I published this, I saw statements in the papers, from persons east, that they had a plum-tree, half the branches over a stream of water, the other half over the ground. The branches over the water always bore a full crop; those over the ground, always stung by the Curculio. Providence, in many things, gives to insects and other races a full knowledge of many things, of which we know nothing.

In Kentucky, some farmers preserve their plums by consulting common sense. They raise a large stock of poultry; their poultry yard is large and surrounded by a fence. In this inclosure they plant plum-trees. The Curculio never troubles them, as the yard is always filled with different kinds of poultry, and do not wish the poultry to destroy them. All parents have this feeling.

[The above, from an old and well-known horticulturist, was crowded out last month. His suggestions are worthy of attention. In regard to planting trees over water, we have no faith in it whatever. We have often examined such, and found them as badly infested as others. We think it is about fifty years since the experiment was first tried, and failed. The experience of every close observer of insect life must have taught him, that in this case at least a little too much has been claimed for instinct. There is no more devout admirer of the wonders of insect life than we are; but we do not care, in the practical things of life, to have our admiration run too far into the domain of the imagination. Every man can settle this point for himself, whether he has a plum tree or not; if he can not spare the time, let him appeal to any intelligent friend who is in the habit of whipping a trout stream. The same instinct which would teach an insect not to

deposit its eggs on a tree overhanging water, ought to teach it not to deposit them on trees in our public parks, where thousands are daily walking; or in a paved yard, or where there are poultry or hogs; but instinct does not do this. Paved yards, poultry, hogs, etc., have their value, not in preventing the Curculio, in the first instance, from stinging the plum, but in destroying the stung fruit, and so from year to year lessening the evil. Concerted action in this way would rid a large district of them in a great measure; for their flight is very short. There is probably no better method than that pursued for many years by Ellwanger and Barry, as recommended by Dr. Trimble last month. We have faith in the remedy of Mr. Cumings of the *Observer*, and we have faith, also, in the Gishurst Compound, when used as directed, and as *preventives. There is no* CURE *for the sting of the Curculio;* and when that is distinctly understood, one step in the right direction will have been taken for lessening the evil. The Curculio has been our companion during the winter; some of them are now as fat and plump as beach birds. Those kept in a warm room feed daily; those kept in a cold room, on being exposed to the warm sun, immediately become active. These were all hatched from larvæ taken from the plum. Our friend, C. Marié, Esq., began, at our request, a similar series of observations at the same time, making almost daily notes. We shall continue these observations through another season, then compare notes, and furnish another chapter to Curculio literature.—ED.]

VENTILATION—IS IT NECESSARY FOR THE HEALTHY GROWTH OF PLANTS?

BY BROOKLYN.

DEAR SIR,—I wish to ask you the above question; pray do not dismiss it and me, as too stupid to be answered. I am but a novice, and "merely ask for information." It is, I believe, usually insisted upon by gardeners, as *very* necessary; and I concede that for plants grown in the ordinary manner, and for ordinary purposes, the common practice is correct. What, then, am I after? Pumping into and out of a barrel is effected in the same way; I want to know which way we pump. Do we open to let in air, or to let out heat? If a pipe ran through the top part of a house, and when cooling (miscalled ventilating?) was necessary, cold air or water were forced through it, or cold water were run over the roof, would not that answer as well as sliding down the sashes? If the temperature never rose above the desired point, would ventilation be necessary?

In most houses, plants are grown with a view to setting out in the open ground; is not the much insisted upon ventilation, simply a "hardening off," acclimating process, not necessary if the plants were intended to remain in the house? There is a wide range in the temperature desirable for plants; the minimum of some, is the maximum of others; it also varies for the same plants, according to the state they are in; the ordinary gardener has to try and strike a happy medium. If but one kind were in a house, were intended to remain there, and the proper amount of heat and moisture were never exceeded, would ventilation be necessary?

Airing cabbage and lettuce frames is strongly insisted upon in all gardening books I have read, and unless it is done, they spindle; does this arise from the

plants needing air, or from the fact that they will not stand a high temperature, and that in consequence of thick sowing and board frames, they are deprived of proper side light?

Perhaps you will think that as I acknowledge the common treatment to be right, the reason therefore is of little consequence—the difference "'twixt tweedledum and tweedledee;" but I think things are best called by their right names, and therefore do not see why what, in my humble opinion, is a false reason should pass current. If ventilation *is* necessary, our furnaces are improperly fixed; it is as easy to give plants fresh air in winter as in summer, if you will pay for it—in fuel. The heating surface should be cased and air warmed as it enters, as in dwelling-house heaters of proper construction; and I think this to be the best way to warm conservatories, or piazza greenhouses; the atmosphere would be more agreeable and healthy for the owners and their friends, if not for the plants.

[Our practical friend is always most welcome. We are ever ready to assist him, and all our readers, to the best of our ability. Things, undoubtedly, ought to be called by their proper names. Whatever the gardener's theory may be, practically he opens his house to reduce the temperature, though in the act he of course lets in fresh air; but the reduction of the temperature is the ruling idea, however, and not the admission of fresh air, in the great majority of cases. The two ideas will naturally be associated by an intelligent mind. We may say, therefore, that ventilation is not resorted to until the temperature has risen above a certain point. In regard to your next question, we may say, "ventilation" *is* a "hardening off" process for plants intended to be transferred to the open air; a gradual approach to the atmosphere in which they are finally to grow. Next, if but one kind of plants were in a house, and the proper amount of heat were not exceeded, "ventilation" would not be necessary. This is but a corollary of what has been said before. Again, cabbages, etc., "spindle" not only because they are sown thick, but because a high temperature causes them to grow too rapidly; the liability to "spindle," however, decreases very much in proportion to the amount of room each plant has to grow in. But in regard to this whole matter, we may say briefly, that a *circulation* of air, in connection with a suitable amount of *moisture*, is more important than a *change* of air. This circulation, where the needed moisture is present, is often afforded by the simple changes of atmospheric heat; though this, again, is dependent to a considerable degree upon the construction of the house. A dry, hot air is prejudicial to most plants; and the admission of cold air in such cases often only substitutes one evil for another. That "ventilation" is often carried to an excess, we have no doubt; and this will continue until the subject is better understood and the whole system changed. We simply say for the present, give your plants plenty of room, plenty of moisture, and "ventilate" as little as possible. With every caution, the excess is likely to be on the wrong side.—Ed.]

WHAT IS A FOX GRAPE?

BY W. A. WOODWARD, OF MORTONVILLE, ORANGE COUNTY, N. Y.

The terms Fox, Foxy, Foxiness, as applied to the aroma of all native grapes, is a misnomer, and, therefore, should be discontinued. It has been given to nearly every species of native grape. Le Conte, in his classifications, has

1. The common fox grape, (*Vitis labrusca.*)
2. The summer grape, (*Vitis æstivalis.*) It is commonly called the "Fox grape."
3. The cobweb-leaved vine (*Vitis araneosa.*) It is known as the "fox grape."
4. The winter grape, (*Vitis vulpina.*) The grapes have a strong smell, resembling that of a Fox; hence the name *vulpina*, (*anglicé*, Fox.)

Here are four distinct species of American grapes designated as Fox, certainly not for their peculiar aroma; for some of these varieties are destitute of it. Will any one presume to call the celebrated Delaware grape (a variety of the *Vitis æstivalis*) a Fox grape? I trow not. From whence, then, did the phrase originate? The fable of the Fox and the grapes is attributed to Æsop, who flourished in the days of Crœsus and Solon, more than 2400 years ago: its application was to the *Vitis vinifera*, and it would hence appear that they had *sour grapes* even in those days. No other species of grape was known in Europe or Asia prior to the discovery of America. We may suppose the first adventurer from beyond sea to this continent, on landing, discovered grapes growing into the tops and extremities of our gigantic forest trees, and, probably, meeting the same difficulty in getting at the fruit that the fox in the fable did, methinks I hear him say, Ah! these are the "fox grapes" we read about. Now the first discoverer has an undoubted right to name the fruit; but he, doubtless, supposed that America, like Asia, produced but one species; subsequent examinations show that there are many; some writers enumerate them by dozens. These have been reduced down by careful classifications to four or five, east of the Mississippi, and these present very distinct and marked differences; yet all are named, as if the only characteristics of an American grape was "a strong smell, resembling that of a Fox." Here is the error. How would it appear, if we were to name the celebrated Muscat grapes, with their peculiar musky flavor, resembling in that respect some of the varieties of the Vitis labrusca so closely as scarcely to be distinguished from them—the *muskrat* grape? and hence endeavor to "make believe" that it had an offensive animal smell. If the name Fox was originally given to one, it certainly does not belong to the three or four other Native species. Let us, then, apply it to the one known as Vitis vulpina of Linnæus, (Fox,) and let the other species be known by their botanical names, V. labrusca, V. æstivalis, V. cordifolia, &c. If the names of animals are still desirable, let us call them polecat, woodchuck, muskrat, &c., and let it be understood, that we shall endeavor to discover the *animal smell* when we eat the fruit, and thus be able to distinguish one from the other. The V. labrusca has a musky flavor, which, instead of being offensive, is agreeable; it is sought after for the aromatic bouquet of its wines. An eminent western vintner writes me, "I should like the Catawba better if it had more of the Fox flavor and aroma than it has for wine;" though he certainly does not mean the "strong smell of the fox," for he could easily obtain the animal at Cincinnati, and impart its peculiar flavor to his wine, by a single plunge into the fermenting vat. Here we see clearly the misnomer; it is not the *fox flavor*, but the musky aroma of the erroneously so called fox

grape that he prefers. So long as we attempt to cast contempt upon any species of grapes, so long shall we neglect to discover their good qualities, and introduce improved varieties into cultivation. The varieties are very numerous. Many of those growing wild are late in ripening, and are valueless; they are overtaken by frost, and fall from the stem while austere, acrid, and immature. We can expect nothing from them, except in warmer climates; but there are varieties which ripen early, and from these may be selected such as will certainly, in future generations, if not in the present, excel the Isabella; larger, sweeter, more juicy, thinner skin, softer pulp, finer flavor, the bunch and berry of good size, adhering firmly, a good bearer, free from mildew and rot, ripen early, and the vine a good healthy, hardy grower. This may seem chimerical; but I am confident that such a desirable table grape can and will be produced from the Vitis labrusca, or from some of its generations; at any rate, one possessing many of these qualifications. The improved varieties of this grape already in cultivation are Isabella, Catawba, Union Village, Concord, Diana, Perkins, Hartford Prolific, and many others of less note.

From the Vitis æstivalis are descended some of our most valuable varieties of the smaller or wine grapes; lacking the aroma of the V. labrusca, but, nevertheless, bearing "bags of wine," containing the proper proportions of sweet, acid, astringency, albumen, mucilage, and vegetable extract, for producing good wine. This species, with, perhaps, one exception, will, probably, never excel for the table, as the bunches and berries are too small to become attractive or desirable. Among the cultivated varieties of this grape are the Delaware, Clinton, (deserving more attention than it has received,) Warren, Pauline, Le Noir, Elsinburgh, and others.

The Vitis cordifolia (Fox grape) is hardly worthy of cultivation for any purpose. I know of no varieties of it that are considered desirable for gardens or vineyards. If the Vitis vulpina is really the grape that has the offensive smell, it is the only one that can be called the Fox grape; then "give the devil his due," and forever acquit the Vitis labrusca and Vitis æstivalis from the charge.

I appeal to the good sense of the pomological world (that world having very much increased of late years, both in circumference and knowledge, has now become very extensive; of course, there must be a large amount of good sense to appeal to) to call things by their right names.

[We agree with you, Dr. Mosher, and others, in condemning the absurd use of the terms in question. There ought to be an end of it at once and forever. You have done a good thing in calling attention to it so pointedly.—Ed.]

VIRGALIEU VERSUS VERGOULEUSE.

BY JOHN B. EATON.

I was some months since considerably puzzled, Mr. Editor, by a report in your journal, of a discussion said to have taken place at a meeting of the Fruit Growers' Society of Western New York, in which the "Vergouleuse" pear came in for a large share of notice.

I was somewhat surprised to learn that this variety had been discussed by the Society in the manner reported, and not less so, that it was grown extensively, or even at all, by the members taking part in the debate.

I quickly discovered, that the pear known of old in this state and elsewhere as the Virgalieu, was the subject under discussion, and very naturally concluded that your compositor, or proof-reader, was responsible for having permitted an error to not only "creep in," but *all through* the article. I afterwards, however, observed the same transposition of names in subsequent notices of the fruit, and found, to my no small surprise, that you, Mr. Editor, had made the change by way of correction, and, as I understand it, upon the ground of a preference, on your part, for the former orthography. I have so far been silent upon the subject, in the expectation that some abler and more influential voice than mine would be raised against the innovation, but in default of that, I am not inclined to allow the matter to pass without recording my individual protest.

Without assuming to be an authority in such matters, or intending to be captious or hypercritical, allow me to suggest, that such a change of appellation greatly tends to increase the confusion in which the nomenclature of many of the older fruits has been so vexatiously involved, and to impede, to a serious degree, the labors of the numerous associations and individuals who have been for years assiduously striving to reduce this confusion to an intelligible system.

In this troublesome labor, they have been in a great degree successful, and I conceive it to be the duty of all who are connected with an authoritative pomological body, to co-operate with its efforts, sustain its decisions, and discourage the use of what have been decided to be other than standard names. In no other manner can we arrive at a uniform system of nomenclature, which is so greatly to be desired, but so very difficult of attainment under any circumstances, and it should especially be considered the province of all horticultural periodicals, to uphold the authority of such associations, and avoid giving sanction to any errors which may conflict with and impede their efforts for the advancement of pomological science and accuracy.

The name "Virgalieu" is so firmly rooted in many localities, that it will scarcely, perhaps, become obsolete in our time, and will occasionally, of course, be brought to notice; yet, at this day, when "White Doyenné" is so generally recognized by pomological authorities as the standard name of the pear in question, it seems to me eminently proper that all synonymous names should be abandoned for this one, if not in familiar conversation, at least in all recorded mention of the fruit, especially reports of discussions and proceedings.

It is not to be denied that the names "Virgalieu" and "Virgouleuse" have been confounded, and I have an indistinct recollection of having heard them, in an instance or two, both applied to the same fruit; but if "Virgouleuse," or "Vergouleuse," was ever recognized by any competent authority as the proper name of the variety in question, it has escaped mention in any pomological work with which I am conversant, and I imagine that it would be an affair of some difficulty to establish it as such at the present day. Admitting, however, for the moment, that it were possible, or even desirable to do so, what is to become of the ancient pear to which this name has so long been applied? Shall we re-name it, or adopt one of its few and scarcely known synonyms?

It will surely not for a moment be contended, that the two fruits are identical? The White Doyenné, or Virgalieu, an early autumn fruit, and the Virgouleuse, a winter variety, differing in form, color, texture, quality, and habit of tree, can scarcely be confounded under one name. The former is known to every one who grows pears; the latter, if planted at all now-a-days, is grown by very few, and I imagine only by those who attach more importance to the extent of their collection, than the intrinsic merit of the varieties comprising it.

To the many, then, who know the Virgouleuse only by name, or, perchance, by description, the transposition of names would render a report of a discussion upon the ailments peculiar to the Doyenné somewhat unintelligible, and tend to convey a false impression of the attributes and quantities of the variety. I trust, Mr. Editor, that in these views you will fully concur, and give us no more Vergouleuse, except in its proper place upon the rejected list.

[It seems to us that Mr. Eaton admits precisely the point we aimed at. If "Virgalieu" is the term by which the White Doyenné pear is most generally known, (and this can not be denied) then to adopt the latter will produce just the confusion against which Mr. Eaton protests; and this is really the fact; for not half those who grow this pear will know what you mean, if you call it the White Doyenné. How, then, does this help the confusion? The fact is, teachers, at least, should aim to call things by their right names, and not bolster up a popular error, even in orthography. Now White Doyenné (not "Virgalieu") is the name that has been adopted by the Pomological Society, and by this the pear should be called and known, especially by Pomological Societies. In regard to the report alluded to by Mr. Eaton, no man ought to have a moment's doubt as to what pear was under discussion: we think that is clear enough. In common with Mr. Eaton, we aim to reduce our nomenclature to simplicity and correctness, and hope to do something to accomplish that desirable end. We have been more successful in our reading than Mr. Eaton; for we have found no less than seven variations of the orthography "Vergouleuse;" but then our studies for many years have been specially directed to such matters. Virgalieu, Virgaleo, Virgalou, Virgouleuse, Vergouleuse, *ad infin.*, are all one and the same word; and to apply it, with a simple variation in orthography, to *three* distinct pears, (which is now the fact,) is, in our estimation, the very refinement of confusion. Where is this to stop? Now, Vergouleuse is undoubtedly the proper orthography; but as the variation Virgalieu is the most common, there can be no special objection to adopting the latter as the English form. But, then, we must alter the form of the winter pear, and call that Virgalieu too, simply adding the adjective "winter;" for none of us ought to be willing to designate two pears by the same word, with a variation in orthography; the distinction, if admitted, would catch the eye, but never address itself to the mind. Either way, but not both. We shall recur to the subject *in extenso*. In the mean time we shall hold on to White Doyenné.—Ed.]

THE "WEED AND INSECT DESTROYER" ASSOCIATION; OR, FEED THE BIRDS.

BY G. H. B.

Mr. Editor,—When we go to Europe, especially to western Germany, we are surprised at the multitude of birds there, in comparison with those of our own land; and the cause of this scarcity with us is generally considered to be the wanton destruction committed on the feathered tribe.

This supposition is certainly correct to a very great extent, and is no commendation to the moral state of our society; but there is another circumstance by which our birds are destroyed annually to a still greater extent. This is, the excessive

character of our climate. Sudden changes from mild spring weather to most furious blasts of severe cold, sinking the mercury in Fahrenheit forty degrees within six hours, as we have seen it during last winter, are enough to kill any bird, especially when it suffers at the same time from hunger.

It was, then, as much from sympathy as from any other motive, that we resolved to feed these little sufferers. We had but a small company of them during the first winter; but the following summer we found that we were less troubled with certain insects, especially caterpillars and tree-borers, the latter having been very destructive to some of our plants.

When autumn came again, we commenced feeding much earlier, and secured by that a much larger company of boarders for the winter, and by them the amount of work done on our premises in proportion; for the birds are never idle, and the better they are fed the more active they will be. And they soon learn to know their benefactor. While walking through our garden and orchard, they will actually follow us, expressing their confidence and gratitude in sweet and pleasing notes; and while they are at the same time busily engaged in their work, we notice that every tribe of these birds have each their own particular office assigned to them by nature, or, (what is the same,) by their Creator. Here we see a flock of the common snow-bird, so named from the circumstance of their appearance during deep snow, as then they are prevented from prosecuting their natural employment. Every weed stalk which carelessness had left to ripen its seed is diligently looked for, and every grain of seed picked up. There, at an old apple tree, and in the corners of some ancient fence posts, are four or five individuals of the small blue woodpecker, (*Sitta*,) in search of the hidden "Turks;" while an army of the *Parus* family, (titmouse,) twist around every twig a dozen times during the winter, permitting no possible escape of a single egg that might produce an insect. But, behold the grave-looking *Picus minor*, with the small red band at the back of his head, hammering away for nearly half an hour at one spot in an old lilac tree just opposite our window; and although the day is cold, and snow-flakes float from all directions, he does not give up until the rascal there hidden is cut free and leisurely drawn out.

Where, then, is the planter or the digger, old or young, who would not give protection to aids like these? The task is easy, and affords an amount of true pleasure during the hours of dreary winter, and abundant reward in summer. Provide yourself in due season with three or four bushels of black walnuts, some hemp-seed, millet, and oats, and you are provided for as large a flock as you may likely draw together. We try to feed the snow-birds separate from the insect-eaters, by throwing some oats, millet, and a little hemp-seed on the ground of the south side of a stable, or on a board a little elevated, so that they are not annoyed by cats while they are eating; while the woodpeckers, &c., are fed with the cracked walnuts, hemp-seed, and once a week a little fine cut bacon, all put together in a shallow drawer, which we fasten under a window which opens just above the roof of a verandah. And here it is delightful to sit at the window, and see how the little folks approach their table, chirping to us as they behold the familiar faces of their protectors.

If circumstances had permitted, we should have tried long ago to import from Europe some of the moth-snapper varieties of birds, of which we have but too few, and so many there; for instance, the numerous families of the *Sylvia*, *Curruca*, and *Muscicapa;* also the grub-destroyer, King *Sturnus*, or starling, who follows every plow in the field; and of the *Passer* family, the *Fringilla domestica*. This bird is sometimes complained of as making free with cherries, and also helping itself to

some wheat or barley; but no other bird will destroy as many caterpillars in the course of a day and throughout the summer as this is known to do. Professor Oken says, "As to benefit and harm which birds generally do, it is even not worth while to speak of the latter."

But if any one should attempt to import some of these birds, we would advise such to get them from the continent, perhaps from Bremen; not from England, as those from the continent will be easier acclimated.

[A tender and suggestive plea for the birds, to which we heartily respond. We have only to look at the condition of the trees in our large cities, where the birds find no abiding place, to become convinced of the great service they render us. Let us, then, cherish and protect these beautiful denizens of the woods.—Ed.]

THE ANNA GRAPE.

(*See Frontispiece.*)

BY THE EDITOR.

We had purposed to give as a frontispiece this month a seedling Camellia, raised by the late Mr. Becar; but as the engraver, through a misunderstanding, finished instead the Anna Grape, we give the latter. It makes no difference, except as it interferes with our plan of alternating a fruit and a flower. This grape originated with Mr. Hasbrouck, of Newburgh, was purchased by Dr. Grant, after a thorough investigation of its merits, and named by him *Anna*, after his daughter. Our engraving is a fair representation of the size of bunch and berry, taken from a vine five years old. The bunches are large, compact, and shouldered. Berries large, round, somewhat transparent, and covered with a white bloom. Flesh, melting, juicy, and sweet, with a peculiarly rich spicy flavor, and a musky aroma. Color greenish white, with a tinge of amber in the sun. Season, usually some ten days earlier than Catawba. Quality, *best*. It is, no doubt, a seedling of the Catawba, and closely resembles it in habit. On young vines, the fruit is sometimes a little hard, but, as in the case of many other fine grapes, this disappears as the vines acquire age. The fruit hangs well to the bunch, and should be allowed to remain till thoroughly ripe. Many of us have yet got to learn when a grape *is* thoroughly ripe. It is a good strong grower, and productive.

EDITOR'S TABLE.

To Contributors and others.

Communications, Letters, Catalogues, Periodicals, &c., intended for the perusal of the Editor, and packages by Express, should be directed to the care of C. M. Saxton, 25 Park Row, New York. Exchanges should be addressed to "THE HORTICULTURIST."

PLANTS, &c., RECEIVED.—From Mr. Erhard, trees of the Ravenswood Pear, a very nice early fruit, a portrait of which we have had in preparation since last summer. From Mr. Goodwin, of Kingston, Pa., vines of the Creveling Grape, already figured and described in our volume for 1860. From Dr. Bute, grape vines, and an oak from Africa. From Mr. Sackstader, vines of the Tully and an unnamed grape. From Mr. Richardson, very beautiful seedling Pansies. From Mr. Fuller, seedling Carnations; entirely wilted, however, before we saw them. From Mr. Pardee, the Kirtland Apple, of which an outline and description hereafter. From Mr. Daniel Barker, of Hartford, seedling Verbenas, and new Salvias and Dahlias. From Messrs. Ellwanger & Barry, Rochester, seedling Petunias, single and double, the former very curiously marked. From Messrs. Thorburn & Co., New York, a fine collection of new seeds. From Mr. Peter Henderson, Jersey City, new Verbenas, Lantanas, Fuchsias, Roses, Tigridias, &c. From Mr. Bridgeman, New York, new Fuchsias, Geraniums, Verbenas, Gladioli, Senecio, &c. From Mr. Linsley, of Meriden, a pot of Oscar Strawberries, ripe and very fine flavored. From Mr. Wilson, New York, New Roses, Geraniums, &c. From Mr. Pentland, of Baltimore, (right this time,) new Seedling Verbenas and New Roses. From Mr. Burgess, Brooklyn, a bouquet of Daphne cneorum, a hardy but rare plant, and deliciously fragrant. From Mr. Buchanan, of New York, collection of Gladioli, &c. From Mr. Hochstein, a collection of rare seeds.

AN AMATEUR "ORCHID"-IST.—This title belongs pre-eminently to our friend, Mayor Van Vorst, of Jersey City. Not that he grows Orchids alone; for he has at this moment in bloom the best collection of Azaleas that we have ever seen under one roof, each plant a specimen; he has also a rare collection of ornamental leaved plants, besides Camellias, Rhododendrons, (Sikkim) Epacris, Palms, Ferns, and individual plants not often seen any where; but Orchids are his forte, and of these he has an unrivalled collection in the best possible condition. What is infinitely to his credit, he takes the pride of a true amateur in showing them. Any of our readers who wish to see these remarkable productions of nature, will be sure of a courteous reception. As often as we have seen them, we never weary of admiring their grotesque but beautiful forms. Mr. Van Vorst has recently added a number of new and rare specimens to his collection; he seeks for them as a man seeks for hidden treasure, but with much better success. Almost any man can be a Mayor, (provided he is elected,) but very few can become accomplished Orchidists. With such a collection of plants, and such a gardener as Mr. Fleming, the Mayor is warranted in considering himself a happy man; we hope he is fully so.

THE TULLY GRAPE.—The reader may remember our notice and commendation of a small, very sweet grape received from Mr. Sackstader, of Louisville. A name being wanted for it, we have, after due inquiry as to its origin and history, determined to call it the *Tully Grape*, by which name it may hereafter be known.

BRIDGEMAN'S CATALOGUES.—The Messrs. Bridgeman have placed on our Table a complete set of their catalogues, neatly bound in one volume, and superscribed "*The Horticulturist*," for which we return them our thanks. This is a very convenient form in which to put them, and might be followed by others with advantage.

BUCKLEY'S POTATOES.—We have received from Mr. Buckley, of Williamstown, Mass., a sample of his seedling potatoes. They boil dry and mealy, and are of a rich, delicate flavor, superior, in our opinion, to the Peach Blow. The County Agricultural Society measured off an acre, and found the yield to be some 560 bushels! Who beats it? We purpose sending for a barrel of that seed.

WINES.—We are indebted to Mr. Anderson, of Dubuque, Iowa, for samples of tomato and blackberry wines. We do not, of course, compare them with grape wines, though they are better than many of those that we have seen; but the two classes are essentially distinct. Of the samples before us, the tomato is very good, one sample being much above the average; both are well made. The blackberry partakes more of the character of a cordial than a wine, and is a pleasant summer drink. Both samples seem to be free from artificial flavoring.

CIRCULAR—AMERICAN POMOLOGICAL SOCIETY.—At the last meeting of the American Pomological Society, held in Philadelphia on the 11th, 12th, and 13th of September, 1860, the following resolutions were offered by P. Barry, and unanimously adopted:

Resolved, That, in conformity with the recommendations of the President in his Annual Address, and of the General Chairman of the Fruit Committee, Samuel Walker, Esq., at the last meeting of the Society in the City of New York, a Local Committee of five be appointed in each State and Territory, which shall be charged with the duty of preparing a Catalogue of the fruits in its own locality, on the same general plan as the Society's Catalogue, due regard being had to soil, climate, position, and other circumstances affecting the tree and fruit, and that the Chairmen of such Local Committees shall be the Chairman of the State Committee, with power to appoint his associates.

Resolved, That a special Committee be appointed by the Chair at this time, to whom these various local Committees shall make their report during the year 1861; and that such Special Committee be charged with the duty of compiling from the Local Catalogues, prepared by the various Local or State Committees, and from the present Catalogue of the Society, full lists of all the fruits therein named, properly classified and arranged, with due regard to nomenclature and terminology, and shall submit the same at the next biennial session of this Society for its consideration and action.

The Committee appointed to carry out the objects of these resolutions have issued a circular, which we here append.

To the Chairmen of the several Local or State Committees of the American Pomological Society:

Dear Sir: At the last meeting of the American Pomological Society, held in Philadelphia on the 11th, 12th, and 13th of September last, (1860,) action was taken upon the revision of the Society's Fruit Catalogue, as will be seen by the subjoined extract from the proceedings, and the undersigned were appointed a Special Committee to receive the Reports or Catalogues of Local or State Committees, classify and arrange the same, and submit them to the Society at its next biennial session, to be held in Boston in 1862.

It is therefore our duty to request you, as Chairman in your State, to organize your Committee, and enter upon the work of preparing your Catalogue at once, so that it may be transmitted to us some time during the ensuing year, 1861, as provided in the resolution.

In preparing your Report or Catalogue, you will please observe that the arrangement of the present catalogue of the Society is to be followed as closely as possible, giving,

1st. A list of varieties suitable for general cultivation in your State, or such other region or district of country as your committee represents;

2d. A list of such new or newly introduced varieties as promise well;

3d. A list of such as are known to be valuable for special purposes, as for marketing, or for particular soils and localities only.

It is the design and aim of the Society to make its Catalogue so comprehensive and accurate that it may become the standard of American Pomology; hence it is important that Committees exercise the greatest care in preparing their lists, accepting such information only as they know to be perfectly reliable.

It will be understood that no varieties are to be classed for "General Cultivation" within any State or locality, upon brief or partial experiment, but must be *generally* and *successfully* cultivated for a considerable period of time. In the case of those classed for particular localities or purposes, the nature of these particulars should in all cases be given if possible.

Trusting you will find it convenient to give prompt attention to this work, we remain, very respectfully, P. Barry, *Chairman*, J. S. Cabot, L. E. Berckmans, J. A. Warder, Chas. Downing, William Reid, Marshall P. Wilder, *Pres. ex-officio, Committee.*

This, as we have heretofore said, is the most important movement yet made by the Society, and if faithfully and judiciously carried out, will be productive of most valuable results. The task is a laborious one, but we trust the Committees will set themselves about it with energy. The duty of the Committee, as we understand it, is not only to arrange and classify the fruits, but to determine their proper names and orthography; at least the catalogue, in these particulars, would seem to require no little revision. We purpose throwing into the form of an article some suggestions which we suppose may be of service to the Committee.

Raspberry Wine.—Mr. Doolittle has sent us a bottle of wine made from his new Raspberry. It would more properly be called a cordial, and will make a pleasant, cooling drink for summer.

Evans's Rural Economist.—This is a new monthly, devoted to Agriculture, Horticulture, and Rural affairs. The first number is well printed, the matter good, and the whole has a promising appearance. It has made its appearance at an unpropitious moment, but we wish it an abundant success. It is edited by Dr. Edmund C. Evans, and is published at West Chester, Chester Co., Penn.

Rhubarb Wine.—We are indebted to Mr. Shotwell, of Rahway, for a bottle of his Rhubarb wine. It is a very good wine of its class, and well made. We should like to see a sample of it when about five years old.

Seedling Pansies.—Stopping at the fine residence of Mr. Pillot, Orange, we saw a couple of very fine seedling Pansies, raised by his gardener, Mr. Carmohn. Both are large, and unexceptionable in form. One a deep, brilliant yellow, with a maroon eye, we named Sceptre d'Or; the other, nearly a *sky blue*, with a white eye, we named *Mrs. Pillot.* This is a unique and beautiful flower, of a very striking color. There are many noteworthy things about Mr. Pillot's place, which we may say something about hereafter.

The New York State Fair.—The Twenty-first Annual Fair of the New York State Agricultural Society will be held at Watertown, Jefferson Co., September 17, 18, 19, and 20. The prize list is liberal and judicious. Let the farmers of New York State do their duty, and there will be a good time at Watertown next September.

Vines Winter-Killed.—The past winter has been peculiarly hard on Grape-vines. The

older kinds, such as Isabella and Catawba, have been nearly killed in favorable localities, where we have never known them to be injured before. Such a winter may not recur again in a lifetime; still, it is interesting to know what kinds are able to withstand even such vicissitudes. We are now collecting statistics bearing on the subject. The following is from a letter from Mr. Seelye of Rochester, N. Y.

"I have on one trellis several vines of Isabella, together with one Delaware, one Diana, one Elizabeth, and one Hartford Prolific. These vines are from six to eight feet high, well formed, with laterals. During the past winter the buds of Isabella have been nearly all killed to within two feet of the ground, especially those on the wood of last years' growth, and this wood also in many cases is destroyed.

The Diana vine has suffered to about the same extent as the Isabella, only the lower buds being alive.

The Rebecca was entirely destroyed within a foot of the ground, buds and wood. Hartford Prolific as bad as Rebecca; and now the rub of the story is, that the Delaware on the same trellis, and having the same exposure, has not suffered in the least. The wood is perfect to the very tip, and every bud is now bursting.

I offer this as another testimony in favor of this delicious grape, and with the other reports that have been made this Spring to the same effect, it can not be much longer doubted that this variety must soon supersede, for general cultivation, all others now in use in the extreme Northern States and Canada."

Seedling Petunia.—We have received from Mr. A. G. Burgess, East New York, a remarkably fine Seedling Petunia. The flower is large, of good substance, well formed, and handsomely marked. The ground color is pale pink, with a well defined, deep rosy purple star. It is quite distinct, and in all respects first-rate. We name it *Purpurea Stellata.*

Canadian Farmers' Gazette.—This is a new *monthly* newspaper published at Brantford, Canada West, at 50 cents a year. Augustus Webber, Proprietor. No. 2 has been enlarged, and otherwise much improved.

Fruit Winter Killed.—Mr. B. F. Bartolet, writing from Eastern Pennsylvania, speaks thus of the destruction of fruit in that section of country. "Fruit growing in Eastern Pennsylvania is well-nigh done for this season. We may have a few apples and pears yet, if nothing happens to destroy them. On the morning of the 3d inst. we had a killing frost, and on the 4th it snowed. If it had not melted it would have been a foot thick; as it was, it lay from three to five inches. The grapes, all my dwarf pears, Chestnut trees, and many other trees and fruits, are totally destroyed. It is yet cold, and the curculio is at work on a few plums that remain. It is too cold for corn, which is not yet all planted, as the season has been, so far, a very wet one."

We have many similar accounts from different sections. In some places not only all the buds killed, but the trees themselves. The prospect for fruit the present season is meager indeed.

Duc de Magenta Rose.—Mr. Barker, of Hartford, has sent us this new tea rose, lately originated by the French. It is large, full, and fragrant, and promises to be one of the best of its class.

The Norton Grape, or Norton's Virginia.—We have for some time been engaged in tracing the history of our native grapes, sifting the testimony and collating the facts. Some of these we are now prepared to lay before our readers. We shall begin with the Norton, in regard

to which we have reliable testimony tracing it back to a certain point. The following extract from F. W. Lemosy, Esq., gives the facts in a most interesting form.

"What is known as the Norton grape was discovered in the year '35 or '36, by my father, (Dr. F. A. Lemosy, of Richmond, Va.) Father was, during his life-time, very fond of ducking, and the waters of James River furnished ample means for the gratification of his desires, which he indulged in during the fall months whenever he could leave his practice for a few hours to do so. His resort for shooting ducks was an island in James River about four miles above Richmond, and known as Cedar Island. It is about four hundred yards long and about fifty yards wide, composed of large rocks, which hold the soil in its place, that supports a growth of cedars, oaks, and many wild vines.

"During one of father's rambles over this island, and while eating wild grapes, he chanced to discover a grape much superior to any other he had found there; so on his return home he carried a few bunches to my mother, who, on eating them, recognized a great resemblance to a grape much used for wine purposes in the south of France, the place of her nativity.

"This grape thus became known to us, and brother and I called at Cedar Island every fall for many years thereafter to gather those grapes, and indulge our boyish propensities for fruit. About this time Dr. Norton (one of father's companions) was establishing a small farm and vineyard near our city, and solicited all the information father could give him relative to the cultivation of the vine. It was during one of these conversations on the subject that father mentioned the existence of this wild grape on Cedar Island, and ventured the suggestion that it would make a good wine grape. The same idea was advanced to Mr. John Carter, who at that time produced wine from the Catawba. Well, it turned out that Mr. Carter reached Cedar Island first, and took away nearly the whole vine in cuttings. Dr. Norton arriving there after him, took the remaining stump, together with its roots.

"It is needless here to mention the fact, that brother and I never visited Cedar Island after the above facts were known to us.

"After a few years Dr. Norton developed this grape, and produced a very fine wine; and as he took more interest in it than any one else, we universally called it Norton's Grape, and subsequently Norton's Seedling; by which name I speak of it to this day from mere habit.

"It is proper to say that Dr. N. never claimed any credit for it as a seedling, but only as a wild grape of his adoption. It is a little paradoxical to me to find myself writing the history of an old grape vine that afforded me so much gratification during my youth.

"So much for reading the HORTICULTURIST.

"Refer to HORTICULTURIST, 1857, page 461. Report Pomological Society of Georgia, says: 'Being totally unlike its reputed parents, and agreeing sufficiently well in character with the species Æstivalis.'

"Very true, but not as respects its worthlessness.

"It is not generally known that the first and second crop of the Norton's Grape is always far inferior to what follows, and by cultivating to a single stake and spur pruning, bunches can be made to weigh a pound and a half and the fruit wonderfully improved."

The Norton Grape has been supposed by many to be a hybrid between the Bland and Miller's Burgundy; but it bears no internal evidence of the fact, as well stated by Mr. White; and Mr. Lemosy's account may be regarded as decisive of this point. Dr. Norton never claimed to have originated it. But we shall present more testimony on this subject hereafter.

BROOKLYN HORTICULTURAL SOCIETY.—The Spring Exhibition of the Society was held at the new Academy of Music, a very much better place than its former room. As we could not be present, we condense the following from notes sent us by a friend. The exhibition, we are glad to know, was a very good one for the season, and gave satisfaction to the public. The Society is now putting forth its best efforts; and when the public become convinced that it is

really a "live thing," it will not want for encouragement. The times, however, are most unpropitious. Not having received a list of prizes awarded, we append the list of contributions and leading articles, as sent us.

George Hamlyn, gardener to W. C. Langley, Esq., Bay Ridge, variegated and ornamental foliaged plants, such as Pavetta borbonica, Marantas, Caladiums, variegated Begonias, Sonerilla Margaritiacea, Erionema marmora, Dracena nobilis and terminalis, Tradescantia, Rhopalis, Crotons, Dieffenbachia variegata, New Pelargoniums, large plant of Chorozema, Musanda ponderosa, very singular and rare, choice collection of Ericas and Azaleas.

Robert Murray, gardener to James Patrick, Esq., State Street, choice Azaleas, Tropœolum tricolor, basket of cut flowers, Chorozema Henchmanii, Pentstemon intermedia, Boronia tetrandia, Lechenaultia formosa.

Thomas Templeton, gardener to Estate of Alfred Large, Brooklyn, choice Azaleas, Pelargoniums, Cinerarias, Tree Mignonette in flower, large Geraniums, standard Geranium.

Philip Zeh, gardener to A. A. Low, Esq., Brooklyn Heights, splendid collection of Ferns and Lycopodiums, Fuchsias, Gloxinias, basket of flowers.

John Eagan, gardener to J. Roch, Esq., Staten Island, stocks and Tropœolum tricolor.

Geo. Stein, gardener to John T. Martin, Esq., Brooklyn, choice Azaleas, etc.

Henry Tanner, gardener to Hon. A. S. Stranahan, Brooklyn, collection of Cinerarias and Fuchsias, String Beans and Lettuce, very fine.

President J. W. De Grauw, choice Azaleas and miscellaneous plants.

B. C. Townsend, Esq., Bay Ridge, new and rare Caladiums.

John W. Wood, Washington Heights, splendid Stocks.

Louis Menand, Albany, N. Y., large collection of rare and variegated-leaved plants, consisting of the Fan Palm, Marantas, Dracenas, Begonias, Crotons, Golden Arbor Vitæ, variegated Yucca and Daisy Ferns of the Golden, Silver, and Tree varieties. Also, the new and rare Tricolor Fern, Sago Palm, Erica, Pimelia, Aphelexis.

John Humphery, corner of De Kalb and Washington Avenues, Washingtonia gigantica, or mammoth Pine of California, Golden Arbor Vitæ, Aucuba Japonica, variegated Holly, very beautiful; variegated Pittosporum, Dracena spectabilis, 2 seedling Camellias, very fine; cut Camellias, choice Azaleas, variagated Begonias, new Fuchsias, American Pitcher Plant in flower, new Pelargonium, Indian Rubber Tree, Wardian Cases, or Parlor Conservatories, basket of Cut Flowers, 2 hand Bouquets, stand of Cut Flowers, stand of Pansies.

Poynter & Foddy, Smith Street, choice Verbenas and Roses.

Dailledouze & Zeller, Myrtle Avenue, corner of Yates, new monthly Carnations, extra fine; Auriculas, double White Wistaria, very scarce and rare; Clematis, Cut Roses and Pansies.

James Weir, Bay Ridge, choice Roses, basket of Cut Flowers, table Bouquet.

Henry Hudson, Congress Street, hand Bouquets.

John Friend, Fulton Street, Callas, Roses, and Verbenas.

D. Saul, Brooklyn, collection of Rhubarb, Lettuce, and Radishes.

Thomas Prosser, Jr., Bedford, collection of Rhubarb and Water Cress.

O. Eberhardt, 213 Grand Street, New York, new style of Flower Pots, Hanging Baskets, Fern and Wardian Cases, Bouquet Stands, all made of zinc by a patent process, and beautifully ornamented like china.

W. V. Bloom, 364 Atlantic Street, Brooklyn, Forcing Glasses, with ventilators.

Mr. Gordon, of Astoria, a fine general collection of plants.

Mr. Davenport, of Stamford, Conn., tasteful and well made wire baskets.

At a subsequent meeting of the Society, the President read an interesting paper on the Influence of Horticulture, extracts from which we shall give in our next.

CATALOGUES, ETC., RECEIVED.

Catalogue of Vegetable, Agricultural, and Grass Seeds, and a choice collection of Flower Seeds, comprising in all upward of six hundred species and varieties. Also, one hundred varieties of French Hybrid Gladiolas; Tuberoses; Spring Bulbs of all kinds; Bedding Plants of every variety, well worthy the attention of Florists and Amateur cultivators. Cultivated, imported, and for sale by *Joseph Breck & Son*, Seedsmen and Nurserymen, Nos. 51 and 52 North Market Street, (Up Stairs) Boston.

Speeches of Hon. Henry Edgerton, of Napa, and Judge Burbank, in the Senate of California, on the Resolutions upon the State of the Union.

Speeches of Hon. D. P. Durst, of Colusa, Hon. Alexander Campbell, Hon. Z. Montgomery, of Sutter Co., Hon. John Dougherty, of Sierra Co., Hon. Thomas Laspeyre, of San Woaquin Co., and Hon. W. D. Harriman, of Placer, on the Resolutions upon the State of the Union, delivered in the Assembly of the State of California. For the above California documents we are indebted to Col. Warren, of San Francisco.

Wholesale Price List of Fruit Trees and Plants, Avondale Nurseries, on the Reading Pike, 2½ miles from the City. Depot, 201 Walnut Street, Cincinnati, Ohio. Anthony Pfeiffer, Proprietor.

The Principles and Practice of Land Drainage: embracing a brief History of Underdraining; a detailed Examination of its Operation and Advantages; a Description of various kinds of Drains, with Practical Directions for their Construction; the Manufacture of Drain Tile, &c. Illustrated by nearly 100 Engravings. By John H. Klippart, Author of the "Wheat Plant," Corresponding Secretary of the Ohio State Board of Agriculture, &c. Cincinnati: Robert Clarke & Co., 1861. This is a well written, comprehensive, and thoroughly practical work, which every tiller of the soil may read with profit.

Poughkeepsie Nursery. Descriptive Catalogue of Small Frutis, etc., cultivated and for sale by *Edwin Marshall*, Garden Street, Poughkeepsie, N. Y., for 1861.

The Journal of the New York State Agricultural Society, March and April, 1861.

Hovey & Co.'s Catalogue of Seeds, containing descriptive Lists of the most approved Garden Vegetables, and an unrivalled collection of Flower Seeds, etc. Also, an extensive assortment of the best Agricultural and Grass Seeds, Garden Implements, and Horticultural and Agricultural Books, etc. 1861.

Report of the Special Committee on the Culture of the Grape-Vine in California. Introduced by Mr. Morrison, under the resolution of Mr. Gillette, to examine into and report upon the growth, culture, and improvement of the Grape-Vine in California.

Lenk, Hansen & Co.'s select List for 1861 of Flower, Garden, and Agricultural Seeds, for sale at their Seed and Horticultural Warehouse, Nos. 161 and 163 Summit Street, Toledo, Ohio.

Abridged Catalogue of Fruit and Ornamental Trees, Shrubs, Roses, Bulbous Roots, etc., cultivated and for sale at the Wilson Garden and Nurseries, by *S. Richardson & Co.*, Olcott, Niagara Co., N. Y.

First Annual Report of the Commissioners of Prospect Park, Brooklyn.—Lieut. Vielé will please accept our thanks for the above, which we shall read carefully.

C. W. Seelye's Descriptive Catalogue of Fruit and Ornamental Trees, Shrubs, Roses, etc., cultivated and for sale at the Rochester Central Nurseries, New Main and Union Streets, Rochester, N. Y.

List of Plants cultivated by *Thomas Morgan*, Florist, Lyons Farms, between Elizabeth and Newark, N. J.

Premium List and Regulations for the Ninth Annual Exhibition of the *Illinois State Agricultural Society*, to be held at Chicago on the 9th, 10th, 11th, 12th, 13th, and 14th days of Septem-

ber, 1861. Competition open to the world, except as noted in the list. All railroads terminating at Chicago will convey passengers at half fare, and articles of exhibition *free*.—This is a well-digested and liberal prize list, the cash premiums amounting to $20,000. Some liberal minded gentlemen of Chicago have added a special list of prizes amounting to $2,000. All this ought to produce a grand exhibition.

Catalogue of Fruit and Ornamental Trees, Shrubs, Plants, Vines, and Roses; also, Garden, Field and Flower Seeds, for sale by A. G. Negley & Co., No. 171 Walnut St., Cincinnati, Ohio.

Spooner & Co.'s Catalogue of Fruit and Ornamental Trees, Shrubs, Bulbs, Green-house and Garden Plants, Jamaica Plains Nurseries, Jamaica Plains, Mass.

Catalogue of Azaleas, Camellias, Roses, Fuchsias, Dahlias, Verbenas, and other green-house plants; also, Hardy Trees, Shrubs, and Fruits, including Evergreens, Deciduous Ornamental and Shade Trees, with a choice selection of Small Fruits, cultivated and for sale at the Helendale Nurseries and Seed Farm, Kingsessing, Philadelphia. John Dick, Proprietor.

Correspondence.

Imported Roses.—*Mr. Editor,*—It is presumed that when persons send articles for publication to any journal, they have something to communicate that will be of interest or a source of instruction to the general reader, or class of persons to whom it applies, and, also, that it will embody nothing but facts well known and reliable.

The contribution of Mr. A. S. Fuller in the March number of the *Horticulturist* under the above head, treats of matters in which Florists and Nurserymen are principally concerned, and doubtless intended to give them some information, which it is inferred they did not possess until the writer made it known.

Now the article in question, setting aside the many meaningless expressions referred to in my former article, (not to say any thing of those discriminating rats on shipboard,) does not convey a single item of instruction to those engaged in the business, and the only tendency it has is to mislead the mind of the general reader, as to the actual cost to Nurserymen of such stock, whether purchased here or in Europe.

I now propose to place Mr. Fuller's contribution and his defence thereof, as published in the May number, both together, and with his permission have my final say on the subject. In doing so I will not descend to notice the innuendos and little personalities contained in the latter, but only touch upon such items that are given as facts that may be worthy of notice, or of interest to the reader.

The first article asserts that Roses can be imported from France, with all the expenses paid, at an average cost of $13.55 cents per hundred, and this he thinks in his defence is an over-estimate.

Let the reader notice how Mr. Fuller sustains this position on page 244, fifth line. "We wish the gentleman to understand that we do not say that Roses can be purchased in France for $70 per thousand, if the Nurseryman is restricted to certain varieties." Well done, Mr. Fuller; why did you not mention that before? had you done so, none would have thought of opposing your figures, but would rather have assisted you to have brought them down still lower, if you desired it; for we know of parties who have purchased as low as $40 per thousand, but only of such varieties as the growers may have had left over from a former season, or such as they may have a surplus of; they consist generally of good plants of inferior and free-growing varieties, and poor plants of really good varieties. Such roses might well be sent by sailing vessels, as they could not be made to pay the steamer's freight, unless they were sold at auction

to ignorant purchasers, or offered at retail at moderate prices, with the popular addenda of "own selection," which is one of the inflictions we would pray to be delivered from.

Mr. Editor, suppose I were to write you an article on Dwarf Pears, and in it assert, that the cost of purchasing them here was $15 per hundred, you would at once say, and with truth, that it was an under-estimate, yet it would be just as true as this assertion of Mr. Fuller's, and like that, convey a false impression to the reader.

It is well known that when Nurserymen have a field of Quince or Pear stock ready for budding, they will bud them with such varieties, all believed to be good, and in such numbers of each as, in their judgment, will enable them, when of an age to sell, to clear the whole field at once; yet it will often happen that many varieties will remain unsold, and good varieties too, and the grower would be pleased to sell the remainder for any merely nominal price to enable him to clear the ground and prepare it for a new stock. So with the rose growers of France; after their regular customers are supplied, they will sell the refuse for any price that will pay for digging and labeling, and if Mr. Fuller has bought them at these prices, it only shows what kind of stock he has imposed on his customers.

I would not be uncharitable or seek to leave a false impression, although his defence forces me to the conclusion above given, for I happen to know that the roses Mr. Fuller sells are not all of this description. He has sold some first-class roses, and has had to purchase them, too, at $25 per hundred, and could not get all the varieties he wanted at that, although he tried at more than one place to obtain them.

In continuation of the paragraph before quoted, Mr. Fuller says, "Neither can he purchase large, strong plants of Hybrid Perpetuals under the same rule, (*i. e.*, the purchaser to name the varieties.) But if he gives his orders for so many thousand roses, *assorted* varieties, then they can be had here at $16, and in France at $7 by the thousand."

Mr. Fuller, let me say a few words intended for your private ear. I sell thousands of roses, and have purchased thousands annually, and grow also as many as I can myself without interfering with other descriptions of stock. In purchasing I always name the varieties I want, and also allow my customers to make their own selections, and notwithstanding all my endeavors, I can not get enough of some varieties to supply the demand at any price, for I would at any time prefer to purchase at the selling price to complete orders confided to me, rather than let them go unfilled; and this principle I do not arrogate to myself, but believe it is applicable to every honest Nurseryman in our goodly land.

To proceed further, Mr. Fuller would place Angers in the same relation to France, as Pæstum in Lucania was to ancient Italy. Had he mentioned La Brie, comprising Villecrane, Brie-comte-Robert, and Suine, instead of Angers in his compliment to Rochester, (for which I hope they will be grateful,) he might have come nearer the truth, for the little village of Villecrane alone produces more roses annually than Angers does.

Mr. Editor, allow me in conclusion to thank you for your indulgence in permitting me a second time to occupy your columns, and also to extend to Mr. Fuller the assurance of the most kindly feeling, with the hope that it may always be maintained.

Very respectfully, Andrew Bridgeman, 878 Broadway, N. Y.

House Plants.—P. B. Mead, Esq.—*Dear Sir:* I think many would like to indulge in the above, who are deterred by the fact that plants generally do not thrive if kept continuously in living-rooms. Even when, by extra care, they are got to do so, there is always necessarily a portion of them out of bloom, which are not desirable there, and would be better away in a proper place. I propose that the gardeners tend plants, calling around at intervals to take away those not in order, and return those that are. If they did this, people would buy the more permanent and expensive plants, which now they will not; if they get any they purchase the cheap ones, and when they get out of bloom, throw them away. Or the gardener

could own plants, agreeing to furnish a certain number per season. I think they could largely increase their trade by either or both of these methods.

As you remarked some time back, the common stands are very objectionable; they should have troughs, in which the pots could be bedded in sand. In connection, I would call your attention to Mr. S. B. Parsons' proposition, to roof city houses with glass; this would give a good greenhouse in any aspect, not perhaps in the most desirable place, but certainly better than none. BROOKLYN.

April 15, 1860.

[Always glad to hear from you, Brooklyn. Your suggestion is a capital one, and would open a source of pleasure to many who are now deprived of it. There are a few such houses in New York as Mr. Parsons suggests, and they answer the purpose well.—ED.]

MR. EDITOR:—When I was superintendent of the Nurseries of the Institute Royal Horticole de Fromont, near Paris, M. Soulange Badin, proprietor and director of the said institute, received from Dr. Guillemin, our Professor of Botany, in the year 1834 or 1835, four tubercules of *Solanum Montanum*, (?) with the following letter:

"I send you, my dear friend, four tubercules, extremely precious. They have been given to me by M. Dorbigny, who received them from M. Fontaine, Chirurgien Major of the Griffon, commanded lately by Captain Dupetit Thouars. This traveller gathered them at the summit of the mountain of San Lorenzo, near Lima, at 600 fathoms in height, in a sandy soil and humid atmosphere. I think these tubercules are those of the *Solanum Montanum*, (Lin.) figured by Father Feuillié Ruitz and Pavon. This Solanum is quite distinct from the *Solanum tuberosum*; the tubercules are not lateral like those of the potato.

"M. Fontaine assured me that they were very good to eat, with the savour of the bottom of the Globe Artichoke; and, besides this, that they were aphrodisiacal in quality, which makes them recherched by the old bachelors of Valparaiso, who plant them in their gardens. This gives the explanation of the rarity of the specimen reported by our traveler. If this property is confirmed, I have no doubt of the same success at Paris."

Only one root began to grow, and died a few days after. At the Jardin des Plants of Paris, they have met with the same ill success. C. MORE.

[The above contains some very interesting facts. The quality imputed to this tuber we have no doubt is purely imaginary. A tuber, however, with the flavor of the Globe Artichoke, might be regarded as a luxury. Can any of our readers furnish further information in regard to it?—ED.]

DEAR SIR: The note of inquiry which we had addressed to you on a former occasion was mainly in regard to a remedy against the ravages of mice on our *osage orange hedges*; that if some available remedy can not be instituted, we shall have to abandon this beautiful and otherwise excellent fence in this vicinity. They injure this hedge by girdling the roots.

Olney, Pa., Feb. 16th, 1861. Respectfully yours, P. G. BERTOLET.

P. S.—Will the ammoniacal exhalation of horse manure, placed under plum trees, prevent the ravages of the curculio? and when is the proper time for its application, spring or fall?

B.

[Your first note was lost in the fire, as we wrote you. This one, after a long tour, was placed in our hands by Prof. Lane, of Middletown University. How this happened, Uncle Sam might be able to tell; but he is probably too busy just now. Your annoyance from mice is a very serious one. If a space on each side of the hedge, and close up to the stocks of the plants, is kept well cultivated and free from weeds and grass, the evil will be greatly lessened. Costar's Exterminator (as well as Lyon's Pills) is a good remedy, used according to directions; but it is a deadly poison, and if eaten by your poultry or domestic animals, will be sure to

kill them. You must judge of the safety of using it. A number of remedies have been recommended, but we have no personal knowledge of any except the above. Try this before sacrificing your beautiful hedge. The ammoniacal exhalation of horse manure will not prevent the ravages of the curculio; but if you wish to try it, you must apply it just before the blossoms begin to fall, and renew it from time to time till the plums are as large as hickory-nuts; if any get to that size under this treatment. This, however, has been sufficiently tried without success. Try the sheet recommended in our last number; that, to a great extent, is sure though troublesome. Try, also, Mr. Cumings's remedy and the Gishurst Compound, not as cures, but as *preventives*. Begin when the plums are no bigger than peas, and repeat from time to time during the season. Try, again, Mr. King's tar remedy in our last, and report the result to us for the benefit of others. Here is a chance for you and others to do good, if you have the inclination and time.—Ed.

Mode of Drying the Common Red Currant.—*Mr. Editor:* The currants should be quite ripe when gathered, with the stems attached, and washed or rinsed effectually and drained off. Then stem them and wash them thoroughly, and to each pound of currants add a quarter of a pound of good Havana sugar; then place them in a preserving kettle over a fire until they come to a *scald heat*, when they are turned out into white earthen dishes, and exposed to the action of the sun until, by evaporation, they become hardened on the upper side. Then they are turned over, and there remain until they become so on the other side, and so alternate until they become a sort of leathery texture, when they are put away in earthen jars or boxes until wanted for use. Care must be taken to keep them from the dews of night and rains during the process of drying; finally, the utmost cleanliness should be observed from first to last.

When used, enough hot water is required to dissolve them or render them to any consistency suitable for tarts, jelly, &c. At the same time, more sugar is required to make them quite palatable, which must of course be governed by taste. Currants in this way have kept well with us for three years, and the presumption is, that they will keep for a longer time if well cared for.

Morrisiana, March, 1861. Mrs. Geo. H. Hite.

[Mrs. Hite lately sent us some currants dried as above, which pleased us so much that we sent a request that she would furnish us a description of the mode of preparing them, which we here lay before our readers. We commend it to our lady readers as an excellent method of preserving their surplus stock of currants.—Ed.]

Mr. Peter B. Mead, Ed.—*Dear Sir:* In your favor of the 1st of this month, you asked of me to name to you the best native grapes for wine. Of these the Delaware is undoubtedly the first, although it may not be the most profitable. I am inclined to call the Diana No. 2, but have not had sufficient experience in cultivating this grape to *determine*, and will therefore rank the Lincoln second in quality; next is Herbemont, which far exceeds both the foregoing in bearing and growth, and, I think, if it be fully tried, will prove one of our first wine grapes, especially in the South. The afore-named grapes *all* far exceed the Catawba in quality, though not in every other respect.

The Delaware wine, in my opinion, far exceeds any native wine. It has more strength than any of the rest, and will consequently keep longer.

The Lincoln wine is red, and, in my opinion, equal to the Norton's Verginia, if not superior.

The Herbemont is a grape of which the qualities and advantages are not yet known, although it has been cultivated a long time.

The Marion grape will produce more, and make better wine than any of the Isabella species, of which there are at least half a dozen kinds.

Should my remarks on this subject be too limited to answer your purposes, please call again, and I shall endeavor to satisfy you with the greatest of pleasure.

Cincinnati, O. Yours very respectfully, C. F. SCHNICKE.

[The above from Mr. Schnicke is in response to an inquiry as to the best wine grapes, so far as tried. We are obliged to you for your answer, and shall accept your invitation to "call again." Mr. Schnicke is among our most successful wine makers, and his opinion is entitled to consideration.—ED.]

NEW ZEALAND SPINACH.—P. B. MEAD, Esq.—*Dear sir:* I note article on above in April number. I beg to say that I do not think it a desirable vegetable for this latitude. It is good, but does not come in at the right season. Kidney and Lima Beans, Egg Plants, Squash, and Tomatoes, take the preference, when it is at its prime, and it stands unpicked; at least this is my experience. Frost spoils it. I think, with Mr. Moré, it would be valuable South. It could there be grown for Spring and Fall, as the common is with us. If he and yourself will notice this season, believe you will find that you do not care for greens in midsummer.

SWISS CHARD BEET. I am much pleased with this for greens. It can be raised as Spinach is, or the spring sowing can be allowed to stand. Early in Fall cut off the summer growth, when it will shoot out new leaves, which can be cut until December. Should think if the roots were preserved and planted out in spring, they would give an early crop. In cutting care should be taken not to destroy the crowns.

April 4, 1861. BROOKLYN.

[But the New Zealand Spinach is really in season long before you can get Lima Beans, Egg-Plant, Squash, &c. It is in season quite as soon as spring sown Spinach, and continues until frost. At our hotels, Spinach is in demand whenever it can be had. Many will eat it during the Summer in preference to early cabbage, and it is grown with much less trouble. On the whole, we think a place had better be given to the New Zealand Spinach. The Swiss Chard will make a valuable addition; this, like the other, is too little grown. The roots planted in spring soon run to seed. We hope some of our readers will give both a trial.—ED.]

PETER B. MEAD, Esq.—*Dear Sir:* I have refrained saying any thing more in regard to the Delaware grape, as I knew an article was forthcoming which would set *its nativity forever at rest;* after which I shall make my comments on the characteristics of the Native and Foreign species and varieties of the vine. The *original* Delaware vine is now growing at Pottstown, Montgomery county, Pennsylvania, it having been transplanted there by the Prevost family. The next Report of Transactions of the Fruit Grower's Society of Eastern Pennsylvania will contain the full history of the *foreign* Delaware grape, which *prejudice* and *lucre* have so long striven to *naturalize.* Yours most respectfully,

March 27, 1861. WM. R. PRINCE.

[We shall wait patiently for the report alluded to, and your own comments on "the characteristics of the native and foreign species and varieties." In the meantime, we except to your remark, that "prejudice and lucre have long striven to naturalize" the Delaware grape. It is a slur on some of the best minds in the country. Suppose they retort upon you, that prejudice and lucre have sought to make it a foreign vine; do you or they thereby prove any thing as to the origin of the Delaware grape? Certainly not. In all that we have said personally on this subject, we have imputed no unworthy motives to any body: we have carefully avoided all such irrelevancies. We have always recognized the fact, that a man is entitled to his honest convictions without having his motives impugned. A man's convictions may be wrong, but to question his honesty is not the best way to convince him of the fact. Do let us honestly try to get at the real facts in this matter. We are always open to conviction.—ED.]

THE NEW YORK PIPPIN was introduced here by B. Bruington, Esq., from the nursery of

J. Allen, Hardensburg, Ky. Mr. Allen writes me that his trees were propagated from scions cut from trees, the scions of which were cut by Jas. H. Davis from a tree in New York, about sixty years since, who grafted them at his farm on the Ohio River at the Yellow Banks.

Mr. Davis called it the New York Pippin. It is productive, a long keeper, and of fine appearance, trees in nursery, some injured by the winter of 1855 and 1856. I have selected eighty specimens that measured one bushel. The variety has been grown here about twenty-five years. A. WILLIAMS.

Galesburg, Ill., March, 1861.

[Any thing throwing light on fruits of doubtful origin is always welcome. It would seem, on the whole, that New York Pippin is the proper name for this apple.— ED.]

TO THE EDITOR OF THE HORTICULTURIST.—MR. EDITOR: I would like to say a few words in regard to the disease of the Verbena called the "black rust."

The disease is beginning to show itself among us here, and as I was examining a few plants that were affected with it the other day, the idea suddenly come into my head to try the effect of hot water upon them.

I took six of them (different kinds) from the greenhouse, to the house, and dipped them successively into water heated to between 125 and 130° Fah. I dipped and rinsed them in the hot water for about half a minute, and then set them one side to dry. This I repeated two or three times in the course of the week, and on going to look at them the day after the last dipping, I found that the "rust" was entirely gone from all of them, and the plants looking as healthy as ever, and so they continue to this day, not showing the least sign of "rust" upon them.

I mention this fact, so that persons having a few Verbenas that they are desirous of saving or curing of the "rust," can try it. It is safe and simple, and will not injure the plant in the least.

Of course florists having large quantities of Verbenas could not adopt this plan, as it would not pay for the immense trouble it would cost; but it might answer where they had a few choice kinds that they were desirous of saving.

If any of your correspondents, Mr. Editor, try this plan, I should be glad to know how they succeed. Yours, &c., R. B., JR.

Springfield, Mass., May 7, 1851.

[The "rust," for a couple of years past, has been very destructive around New York. Last season, many of the florists lost a large portion of their Verbenas. Any remedy that will meet the case will be most welcome. Mr. Henderson, in the last *Gardener's Monthly*, states that the disease usually makes its appearance on plants propagated late in the season, especially when cuttings are taken from plants that have been touched by frost. He says that he escapes the disease by taking his cuttings early, and growing the plants in a uniform, low tempature. We know that his plants have been free from the disease when some of his neighbors have lost nearly all their stock. The subject is worthy of investigation. We think "high breeding" has much to do with it, and "vegetable gout" would not be a bad name for it.—ED.]

GARDENERS AND PRETENDERS.—MR. EDITOR: As I have made a few remarks in your last number permit me to add a few more. This being the first year in 21 that I have been disengaged, I thought I would take a run around, to see how matters stood among the fraternity in gardening in our eastern cities. I visited the city of Bangor, much noted for horticulture, and I must say that great credit is to be given to the ladies of that city for their great zest and love for flowers. Still, we know they can not perform the hard labors in the gardens, of pruning, training, digging, &c., and must hire a gardener. This can be accomplished very easy, for gardeners are so numerous that one could be set to every vine in the city at the same time to prune it. One evening I met one of them coming from one of the principal private gardens in

the city; asked him if he was the gardener. "Yes." I asked him what he called that vine, traversing over a portion of the house. "Why, that is a grape-vine," said he. "Do you ever prune it?" said I. "Oh yes," said my brother gardener. "I am going to tie it up, and see to it to-morrow." "Well, it seems to grow well," said I. "Yes, man, it will grow to the top of the house this year." You may judge of the knowledge of brother G., when he did not know the difference between a grape-vine and the Virginian Clematis. Anxious to take a look in the garden, I took the liberty of entering. There I saw currants growing as thick as a tuft of rushes, with I suppose seven-year old wood, all of which was suckers.

I made it my business to go and see one who was considered a professor in working about greenhouses; he did not really know the difference between a span roof house and a lean-to. There are European pretenders of gardening, men who occupied no other position than diggers; they come here and they are gardeners; but, as I said in my last, where there are European gardeners, they can not be confounded; they know gardening in all its branches; but from their constant labors, together with having to study the new introductions which are daily made to the floral and vegetable kingdoms, they can not become such refined penmen. But no matter how simple may be their writing, there will be more truth and information contained in it than can come from any other source.

There is another class of gardeners, which I call old petti-fogging fellows, who knew a little of gardening in Adam's days, and you can not convince them of any improvements in gardening of modern times. They do not read a book, for they really believe that the reading of horticultural books is just the blind leading the blind. Asked one of them about fruits and flowers of superior merits of modern times; they know them not. These are the men who impose upon the public, and hurt the *reputation* of good gardeners. But, Mr. Editor, I will tell you of one thing I saw this spring, which I was sorry for; a fruit and vegetable garden, that its owner, a noble and generous horticulturist, had spared neither money nor his attention to render a source of happiness, as well as a most valuable appendage to his splendid new establishment; it promised last year to be every thing that could be desired in that department; this year, in my opinion, it has lost its whole character, if you think the following a means of doing so. In the centre of this magnificent garden this year I see close to its handsome gravel walks a Bee house; in another part a hot-bed; and another structure, as I was informed, elevated to a high eminence, to be seen from all parts of the grounds, as follows: lawn, flower garden, green-house, vinery, summer-house, and as an ornament in the kitchen garden, conspicuous to every eye, for the accommodations of Mr. G. and his workmen, an unsightly looking privy. if you, Mr. Editor, should think those taking away the character of a highly kept garden, say so, as it might learn others not to commit such errors.

This is a hard working time for gardeners to write, but perhaps you will make this article out. This last mentioned place is in Portland or its vicinity.

Limerick, Me. Yours, J. C. Rilly.

[There are undoubtedly some pretenders and bunglers among your brethren, and we are afraid you have got more than your proportion down in Maine; but then there are also many intelligent and really excellent men among them. Something like a weeding process would seem to be desirable. A gardener who does not read is a pitiable object, unfit for any responsible position; he belies his profession and degrades himself. A bee-house may very well be introduced as a *distant* object in the grounds, but it must be of a purely ornamental or rustic character; it should never be by the side of any frequented walk. The unsightly object you allude to is out of place: the idea of introducing such a thing as an ornament is absurd. If it must be placed where seen, let it be concealed as much as possible by vines and clumps of shrubs. *Forecast* as well as *foretaste* is needed in all these matters.—Ed.]

CAMELLIA SPIRALIS RUBRA.

for THE HORTICULTURIST

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